Figure 2-1. Areas Closed Year-round to Bottom Trawling

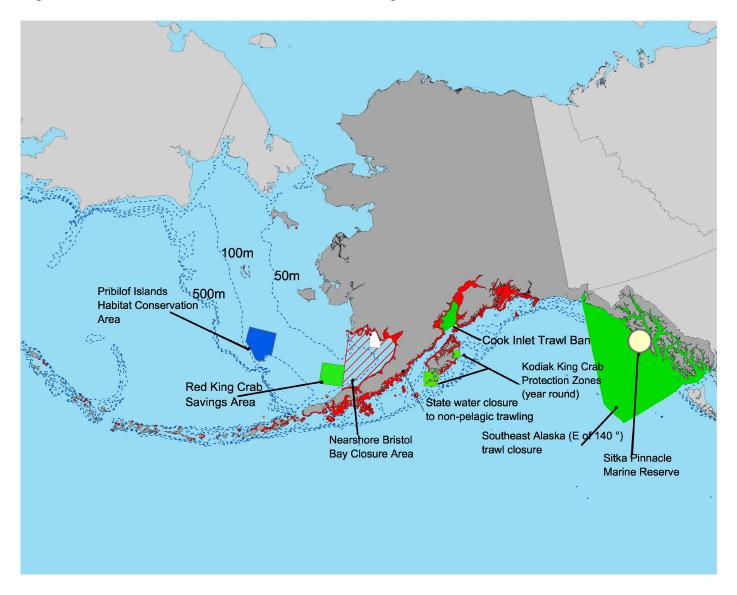


Figure 2-2. State of Alaska's Catalog of Waters Regions

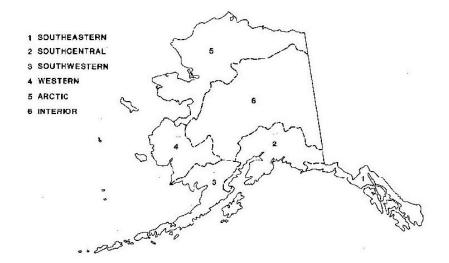


Figure 2-3. Alternative 2: Essential Fish Habitat for GOA Late Juvenile and Adult Pacific Ocean Perch

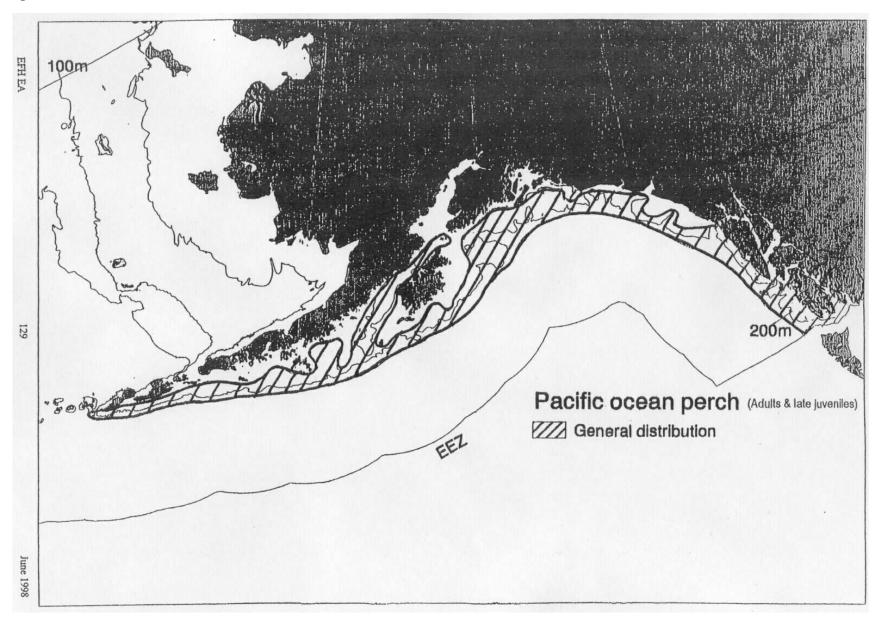
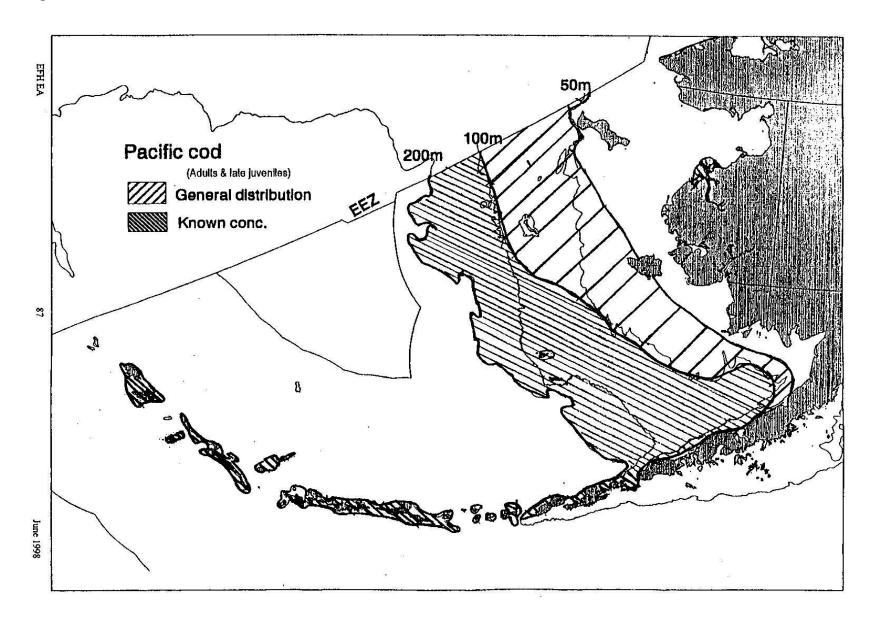


Figure 2-4. Alternative 2: Essential Fish Habitat for Late Juvenile and Adult Pacific Cod



**Figure 2-5.** Alternative 2: Essential Fish Habitat for Golden King Crab Eggs

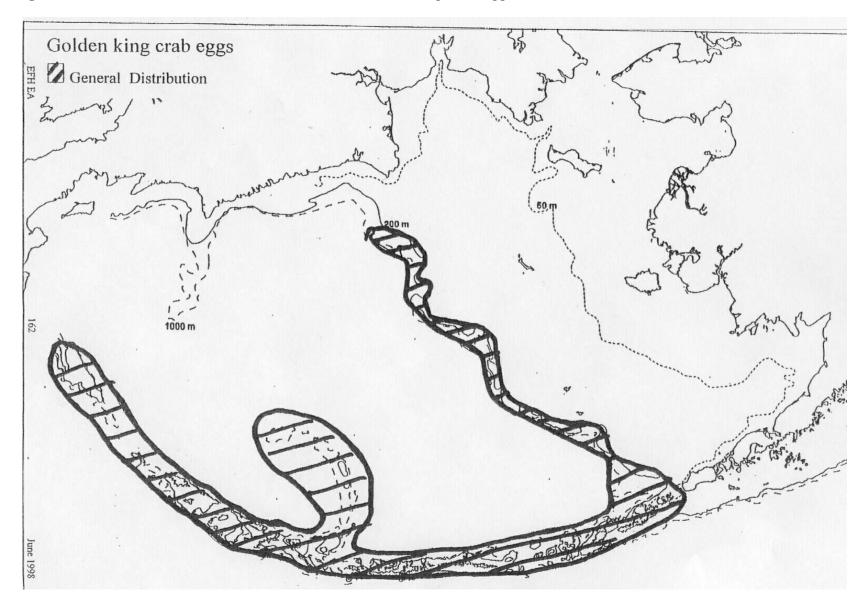


Figure 2-6. Alternative 2: Essential Fish Habitat for Mature and Late Juvenile Golden King Crab

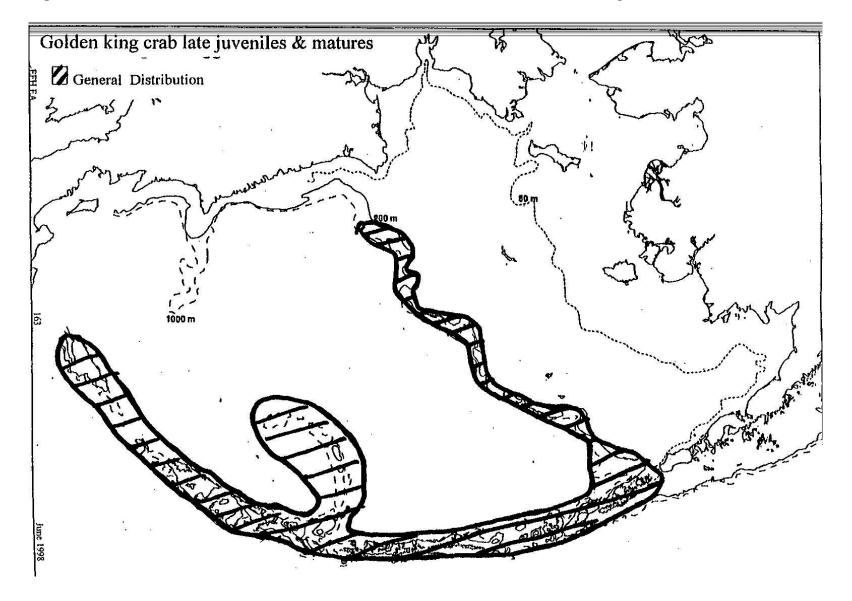


Figure 2-7. Alternative 2: Essential Fish Habitat for GOA Adult and Late Juvenile Weathervane Scallops

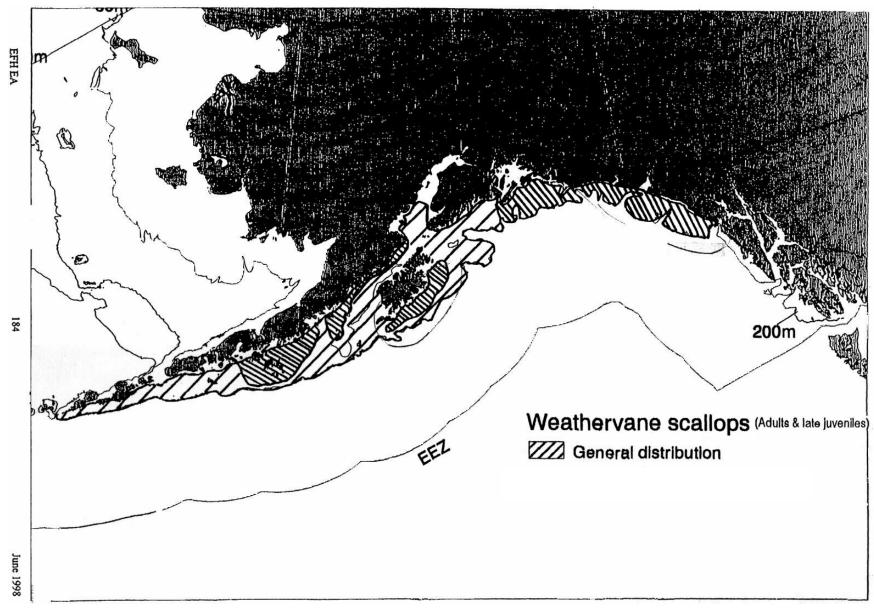


Figure 2-8. Alternative 2: Essential Fish Habitat for BSAI Adult and Late Juvenile Weathervane Scallops

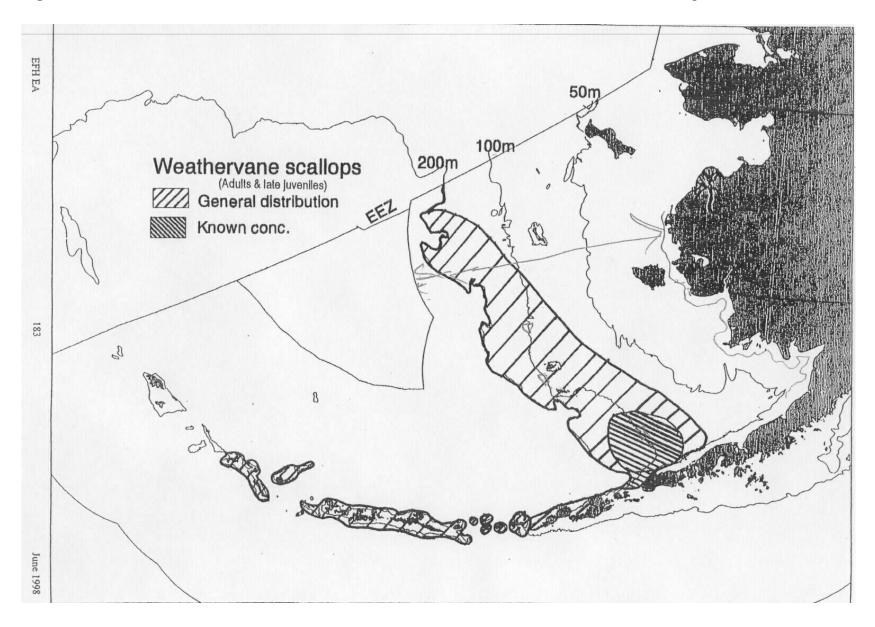


Figure 2-9. Alternative 2: Essential Fish Habitat for Freshwater Salmon in Alaska

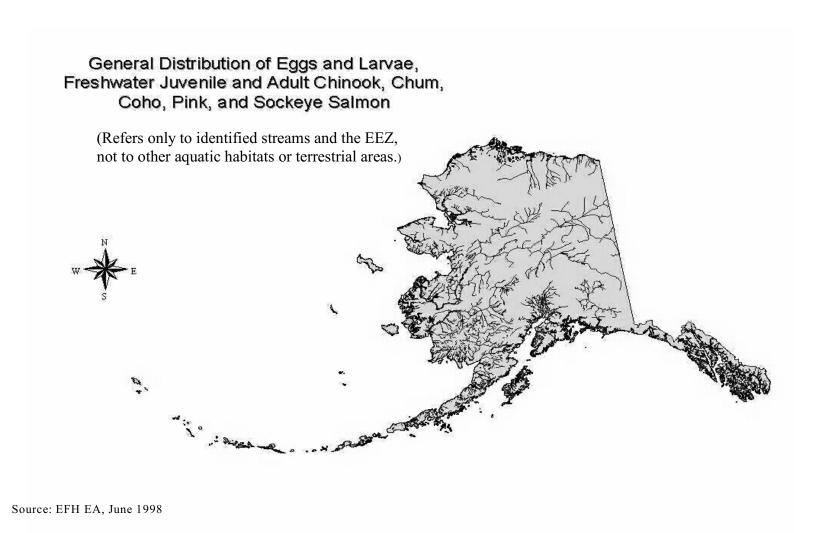


Figure 2-10. Alternative 3: Essential Fish Habitat for GOA Late Juvenile and Adult Pacific Ocean Perch

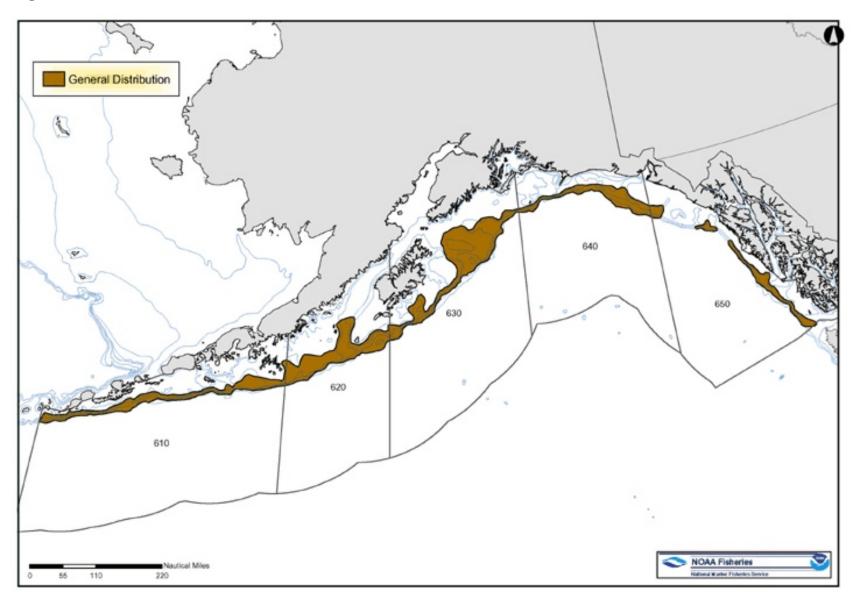
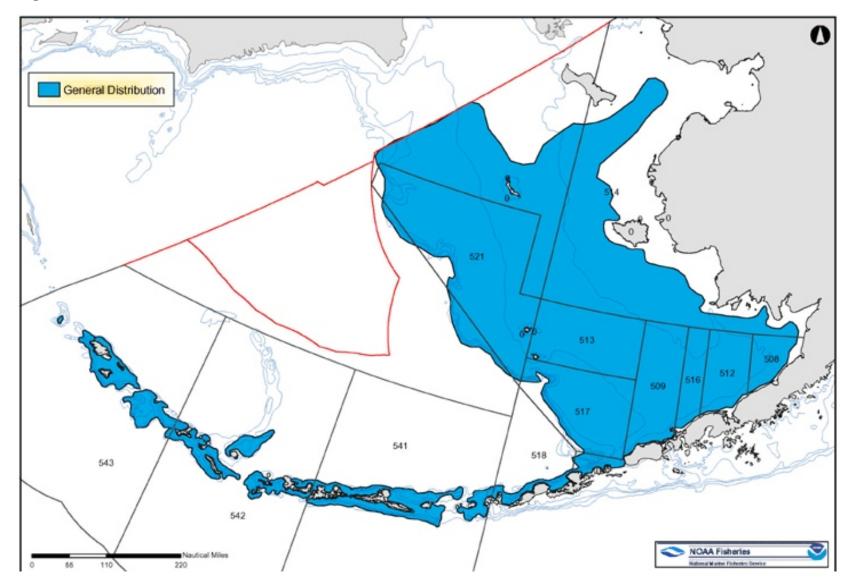


Figure 2-11. Alternative 3: Essential Fish Habitat for BSAI Late Juvenile and Adult Pacific Cod



**Figure 2-12.** Alternative 3: Essential Fish Habitat for BSAI Golden King Crab

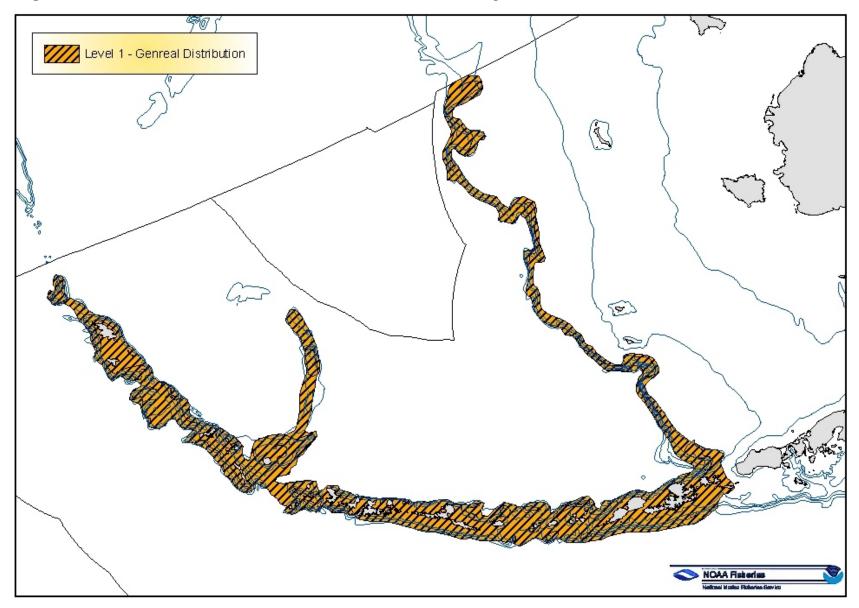
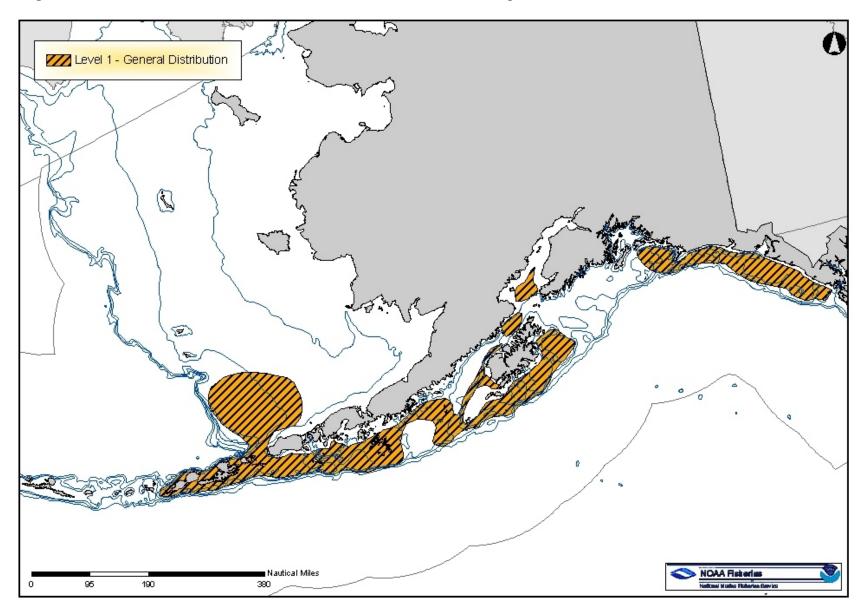
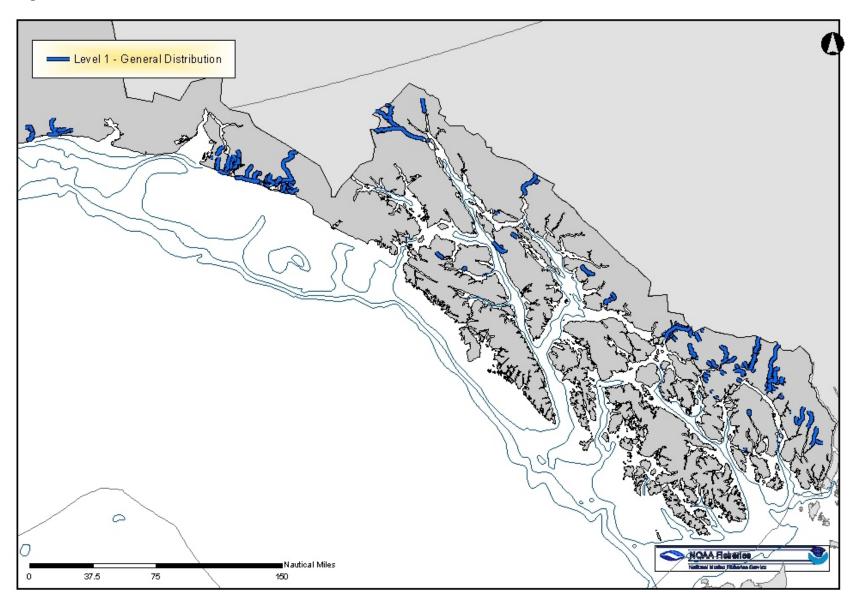


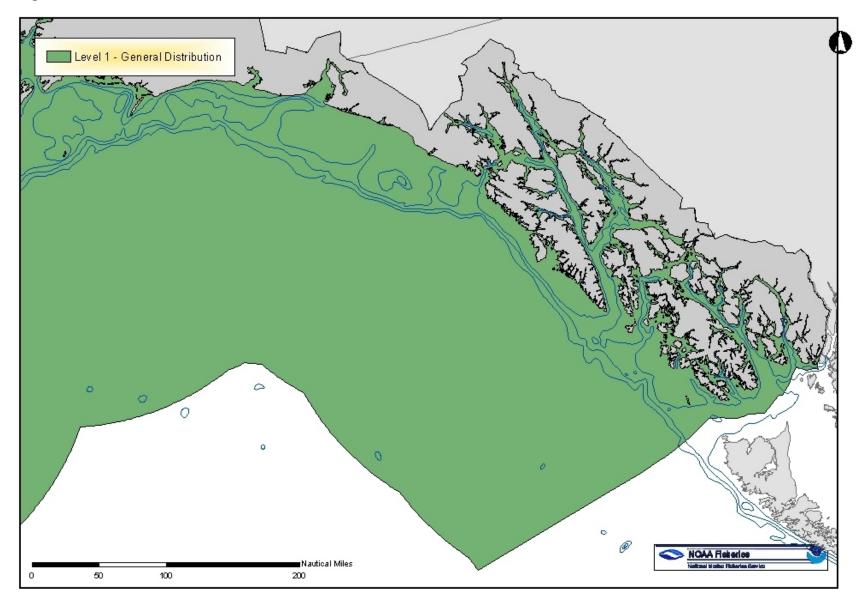
Figure 2-13. Alternative 3: Essential Fish Habitat for Weathervane Scallops



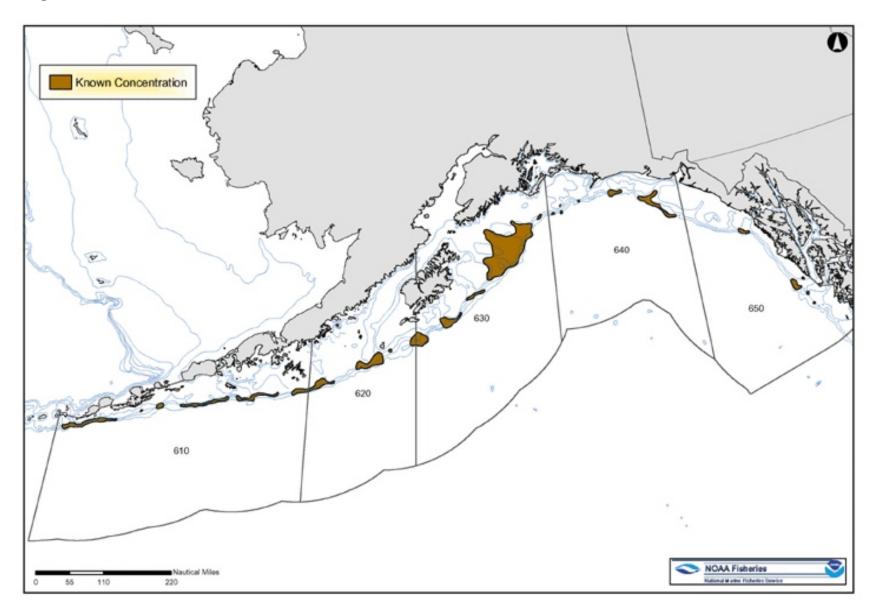
**Figure 2-14.** Alternative 3: Essential Fish Habitat for Freshwater Chinook Salmon



**Figure 2-15.** Alternative 3: Essential Fish Habitat for Marine Chinook Salmon



**Figure 2-16.** Alternative 4: Essential Fish Habitat for GOA Pacific Ocean Perch



Known Concentration 514 517 541 543

NOAA Fisheries

Figure 2-17. Alternative 4: Essential Fish Habitat for Late Juvenile and Adult Pacific Cod

542

Figure 2-18. Alternative 4: Essential Fish Habitat for BSAI Golden King Crab

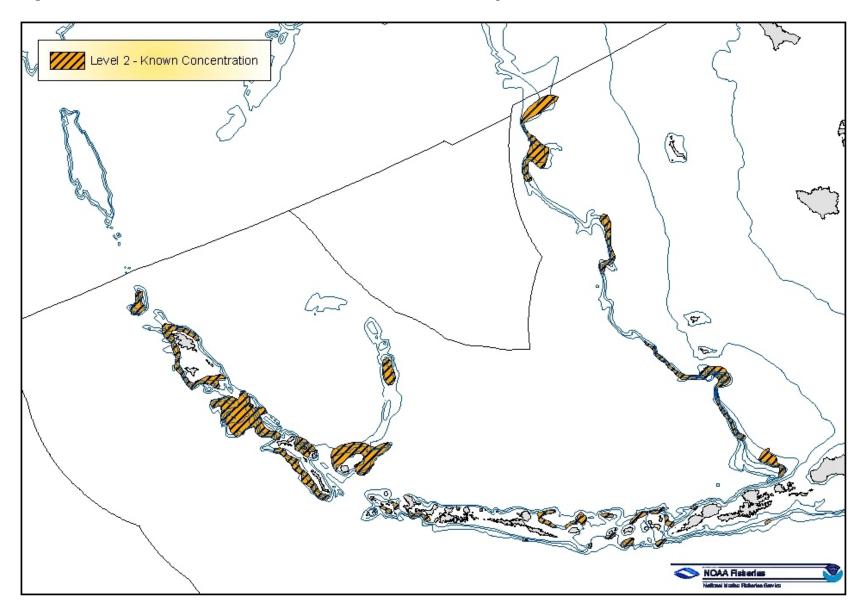


Figure 2-19. Alternative 4: Essential Fish Habitat for Weathervane Scallops

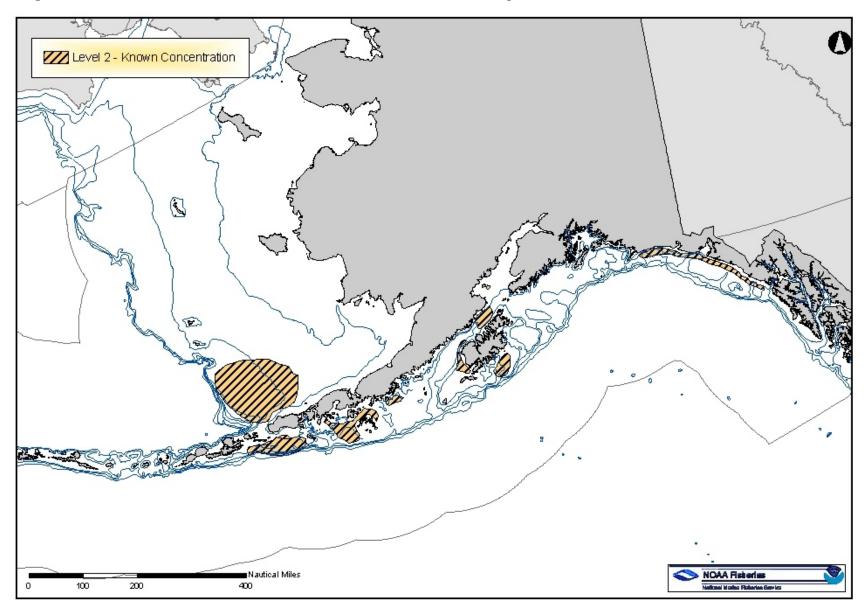


Figure 2-20. Alternative 4: Essential Fish Habitat for Freshwater Chinook Salmon Eggs and Adults

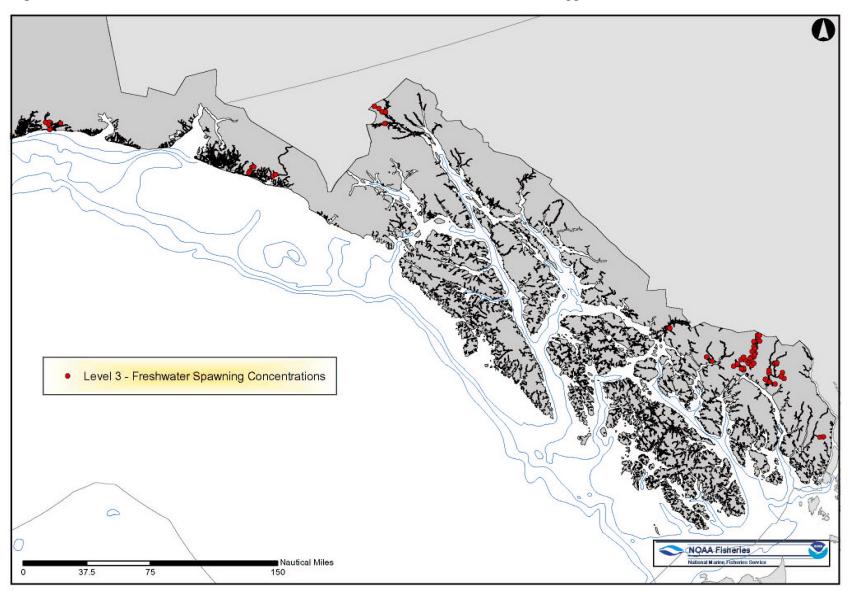
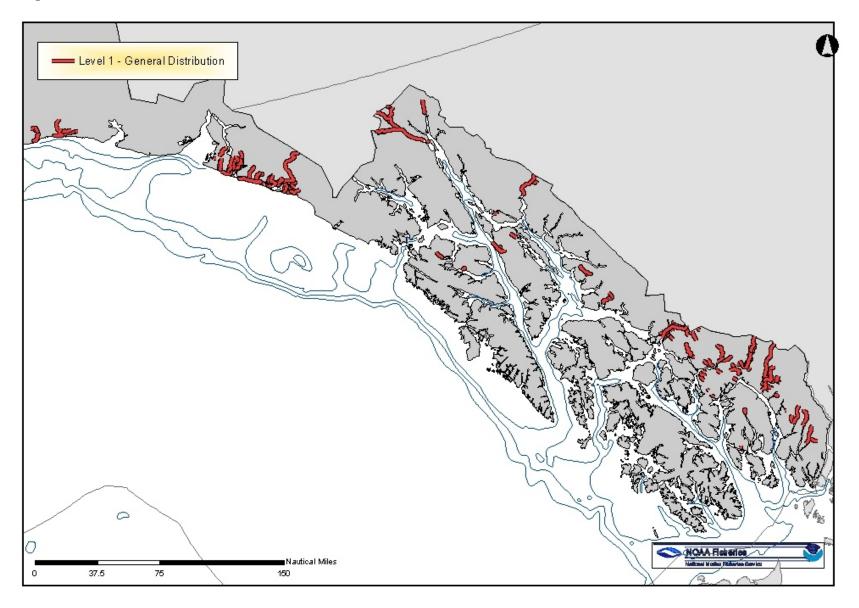
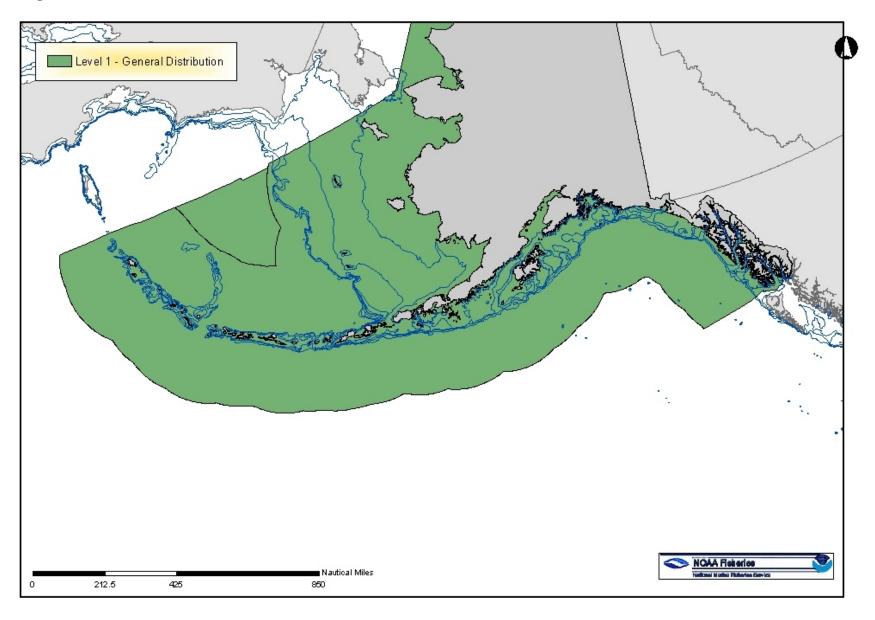


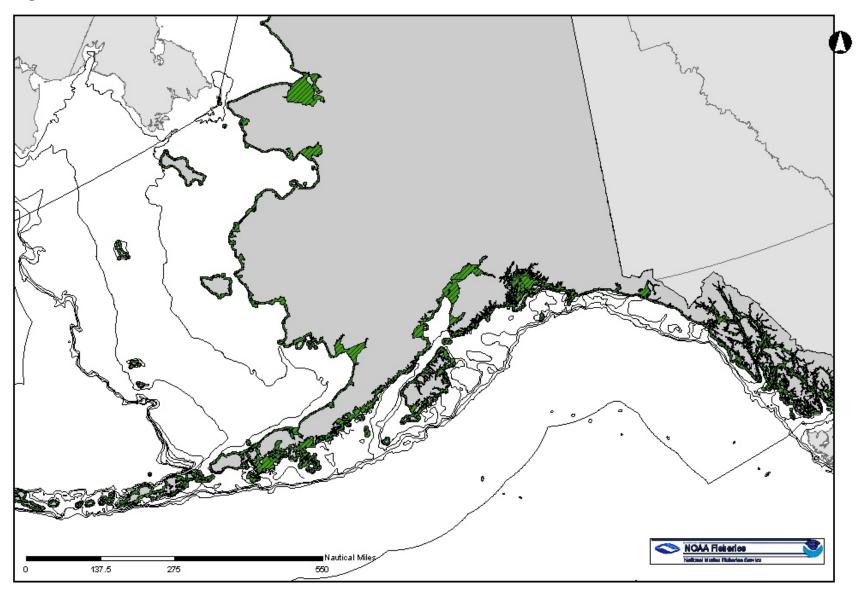
Figure 2-21. Alternative 4: Essential Fish Habitat for Freshwater Chinook Salmon Larvae and Juveniles



**Figure 2-22.** Alternative 4: Essential Fish Habitat for Marine Chinook Salmon



**Figure 2-23.** Alternative 5: Nearshore and Estuarine Essential Fish Habitat



**Figure 2-24.** Alternative 5: Essential Fish Habitat of the GOA Inner and Middle Shelf Ecoregion (0 to 100 m)

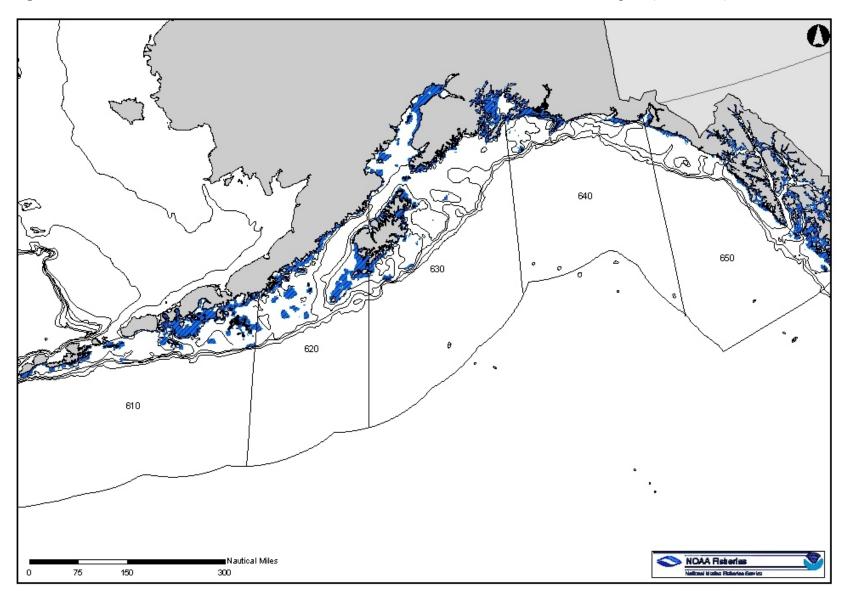
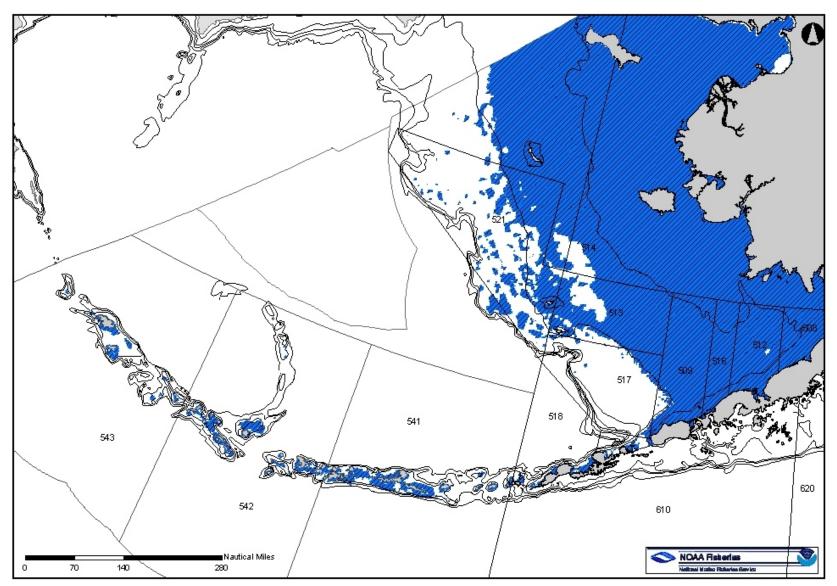
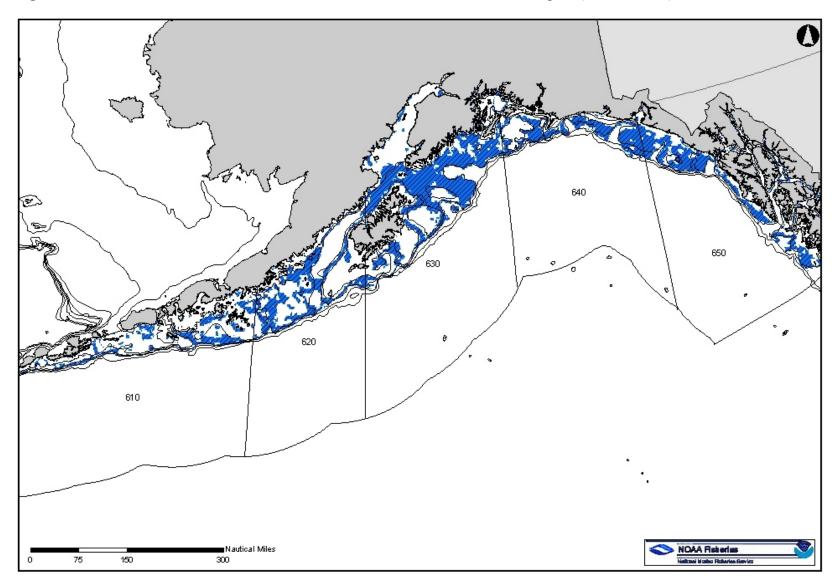


Figure 2-25. Alternative 5: Essential Fish Habitat of the BSAI Inner and Middle Shelf Ecoregion (0 to 100 m)



**Figure 2-26**. Alternative 5: Essential Fish Habitat of the GOA Outer Shelf Ecoregion (100 to 200 m)



**Figure 2-27.** Alternative 5: Essential Fish Habitat of the BSAI Outer Shelf Ecoregion (100 to 200 m)

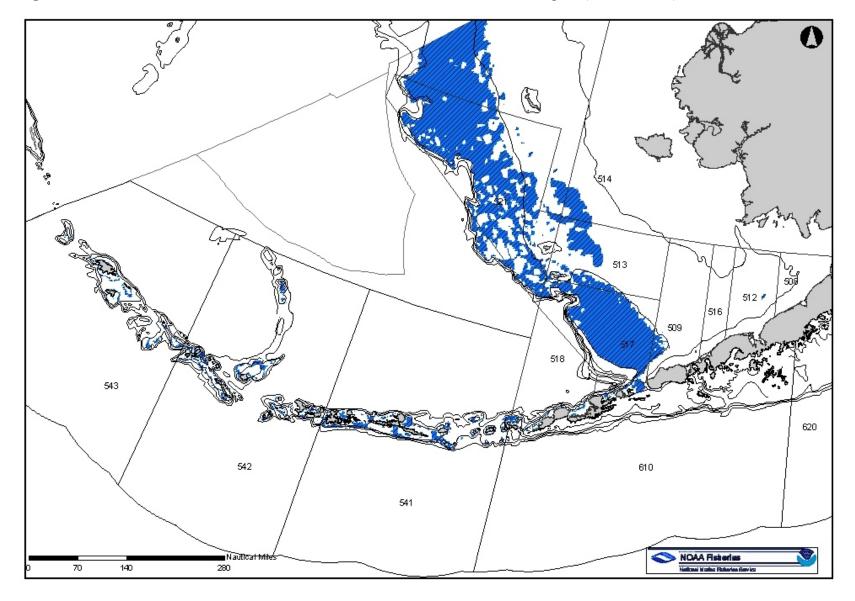


Figure 2-28. Alternative 5: Essential Fish Habitat of the GOA Upper Slope Ecoregion (200 to 500 m)

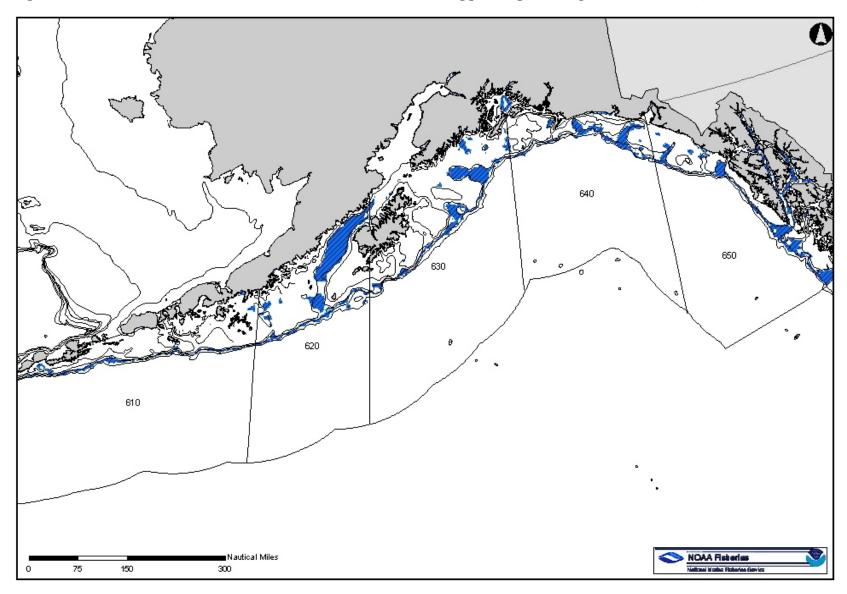


Figure 2-29. Alternative 5: Essential Fish Habitat of the BSAI Upper Slope Ecoregion (200 to 500 m)

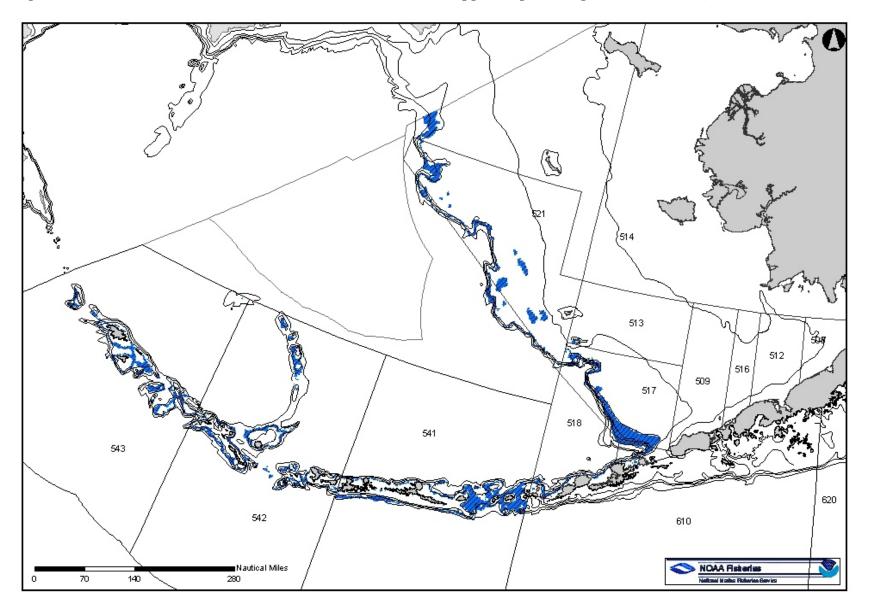


Figure 2-30. Alternative 5: Essential Fish Habitat of the GOA Middle Slope Ecoregion (500 to 1,000 m)

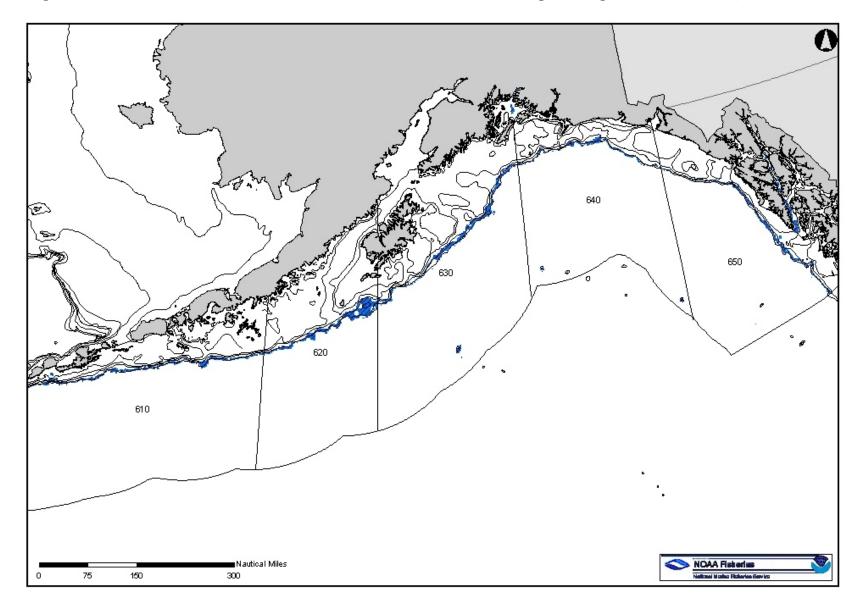


Figure 2-31. Alternative 5: Essential Fish Habitat of the BSAI Middle Slope Ecoregion (500 to 1,000 m)

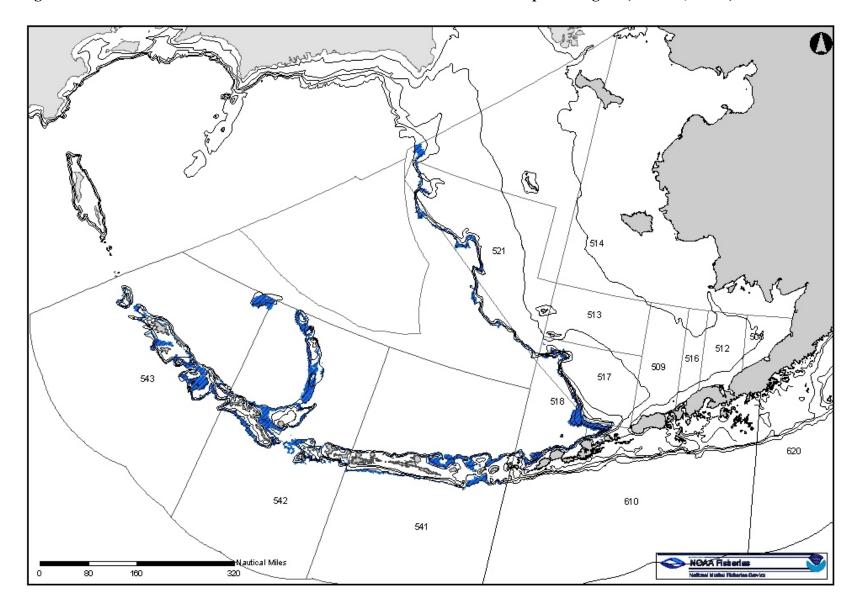


Figure 2-32. Alternative 5: Essential Fish Habitat of the GOA Lower Slope Ecoregion (1,000 to 3,000 m)

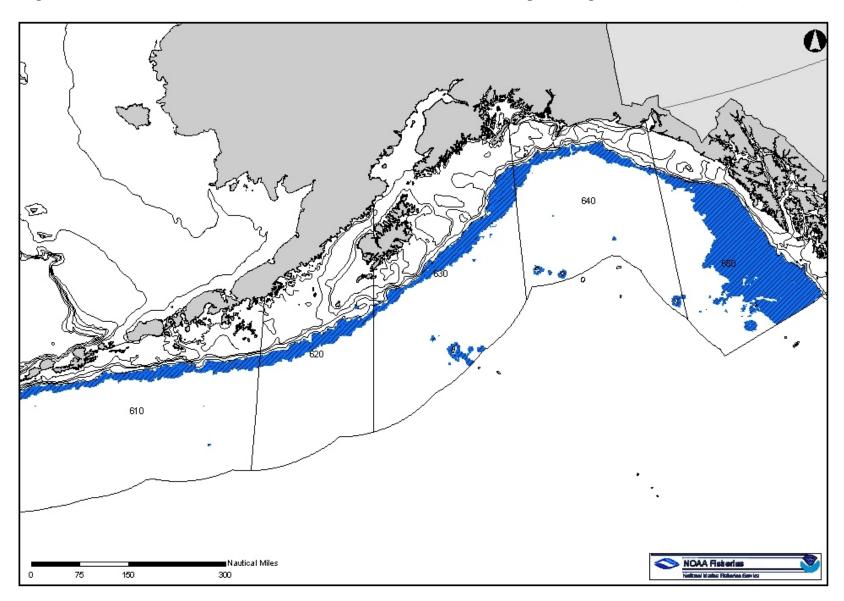


Figure 2-33. Alternative 5: Essential Fish Habitat of the BSAI Lower Slope Ecoregion (1,000 to 3,000 m)

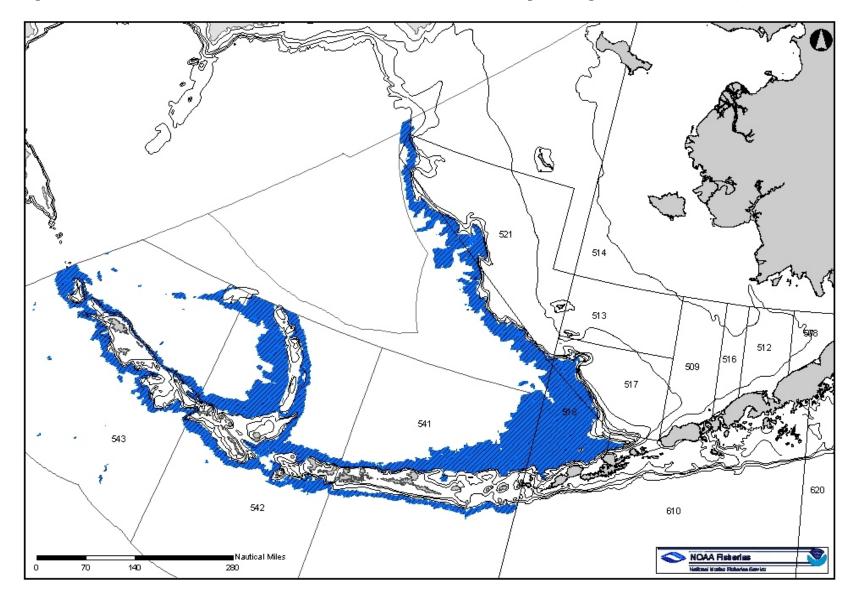


Figure 2-34. Alternative 5: Essential Fish Habitat of the GOA Basin Ecoregion (>3,000 m)

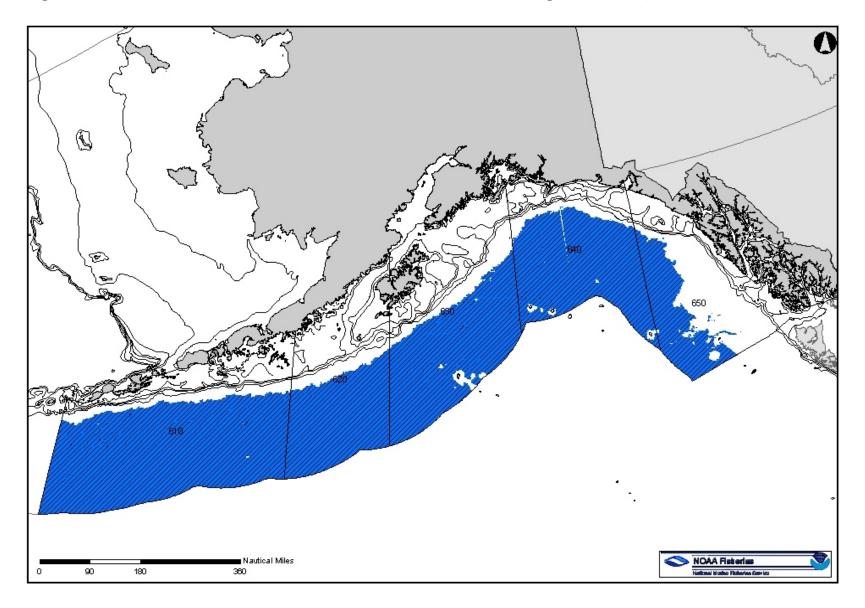


Figure 2-35. Alternative 5: Essential Fish Habitat of the BSAI Basin Ecoregion (>3,000 m)

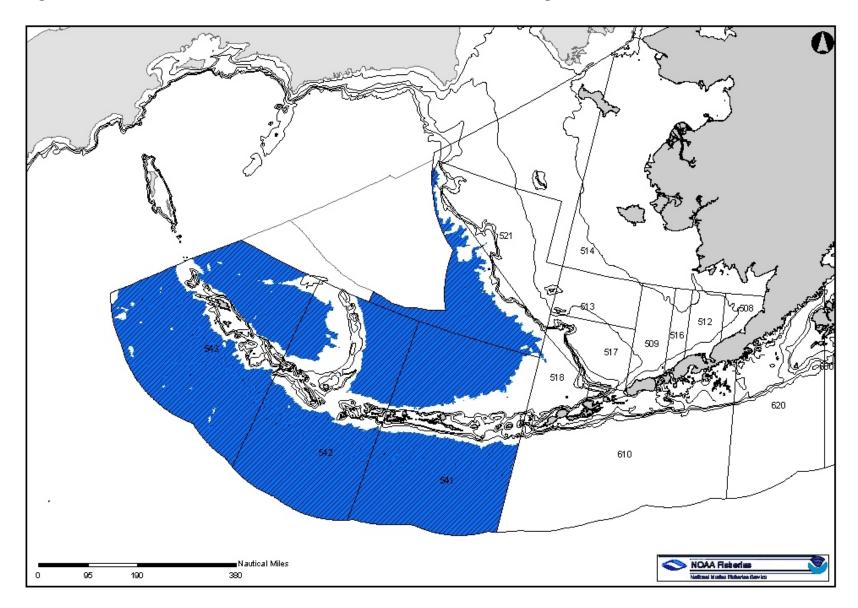
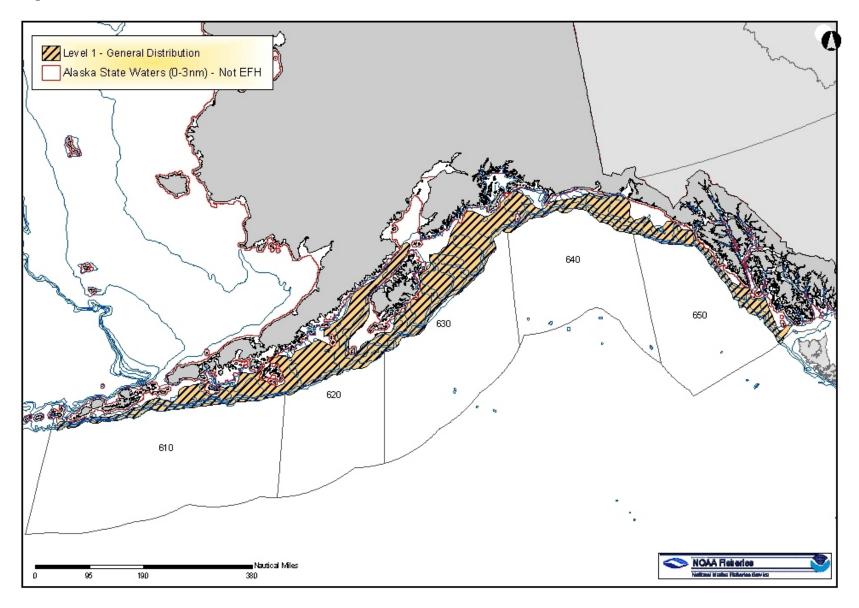


Figure 2-36. Alternative 6: Essential Fish Habitat for Late Juvenile and Adult GOA Pacific Ocean Perch



Level 1 - General Distribution

Alaska State Waters (D-3nm)- Not EFH

Figure 2-37. Alternative 6: Essential Fish Habitat for Late Juvenile and Adult BSAI Pacific Cod

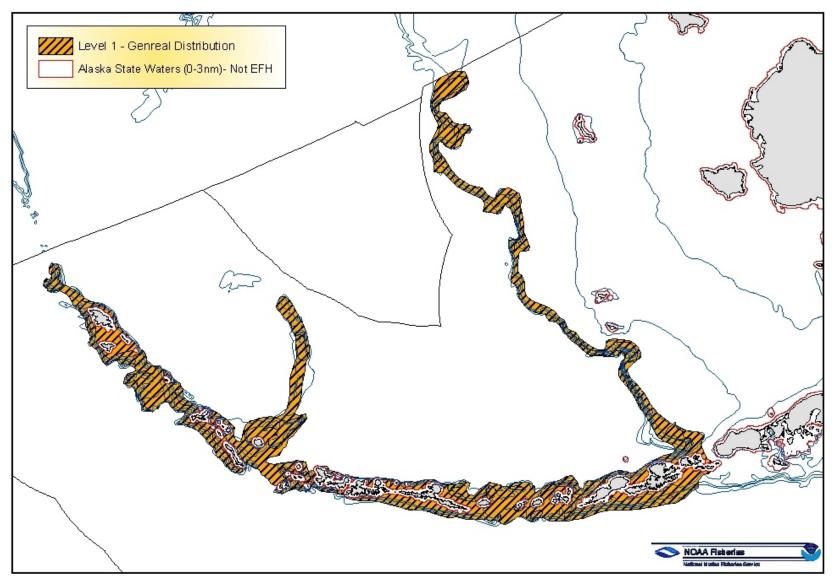
542

Nautical Miles 380 541



190

Figure 2-38. Alternative 6: Essential Fish Habitat for BSAI Golden King Crab



Level 1 - General Distribution Alaska State Waters (0-3nm) - Not EFH NOAA Fisherius
Neltoni Nobe Fisherius Gevi 190 380

Figure 2-39. Alternative 6: Essential Fish Habitat for Late Juvenile and Adult Weathervane Scallops

Figure 2-40. Alternative 6: Essential Fish Habitat for Marine Juvenile and Maturing Adult Chinook Salmon

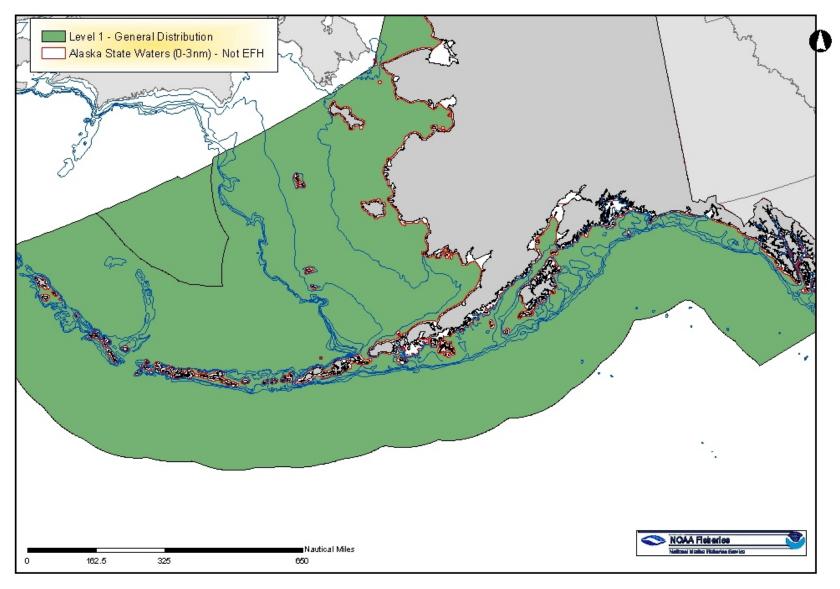
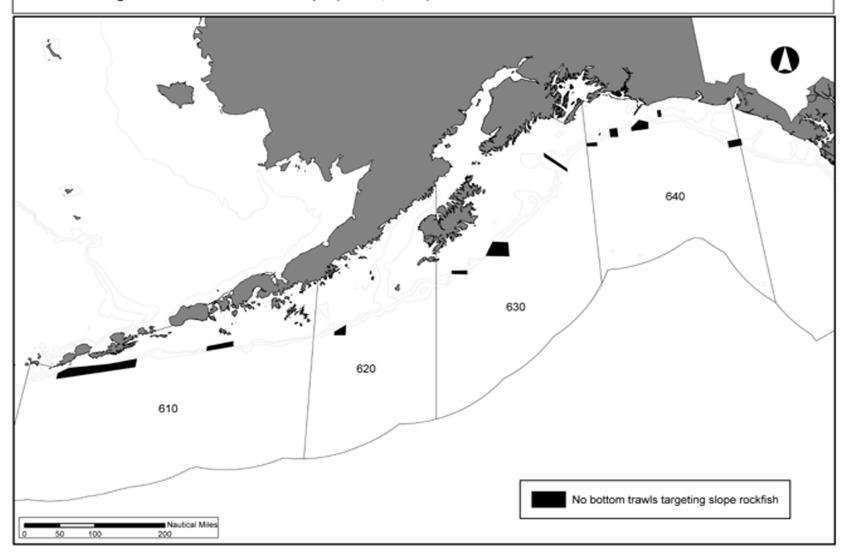


Figure 2-41. Alternative 2: Gulf Slope Bottom Trawl Closures

EFH Mitigation Alternative 2 Gulf of Alaska: Prohibit the use of bottom trawl gear targeting GOA slope rockfish within 11 designated sites of the GOA slope (200-1,000m)



Chapter 2 Draft EFH EIS – January 2004

Figure 2-42. Alternative 3: Upper Slope Bottom Trawl Closures

EFH Mitigation Alternative 3 Gulf of Alaska: Prohibit the use of bottom trawl gear targeting GOA slope rockfish on the GOA slope (200-1,000m)

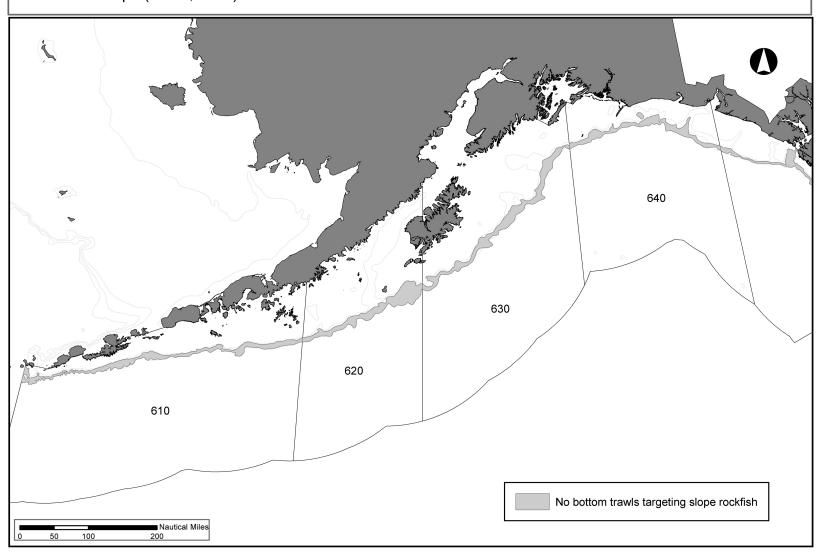


Figure 2-43. Alternative 4: Bering Sea Open/Closed Areas

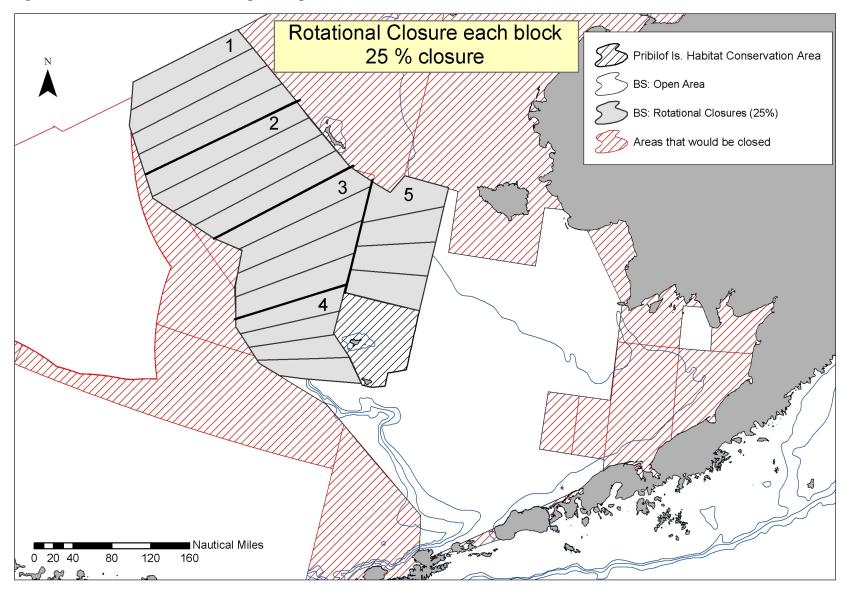


Figure 2-44. Diagram of Trawl Gear

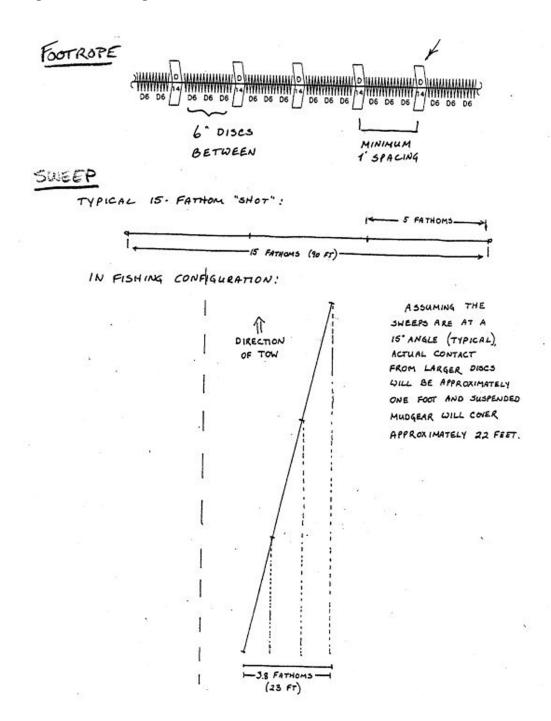


Figure 2-45. Alternative 4: Aleutian Islands Closure Areas

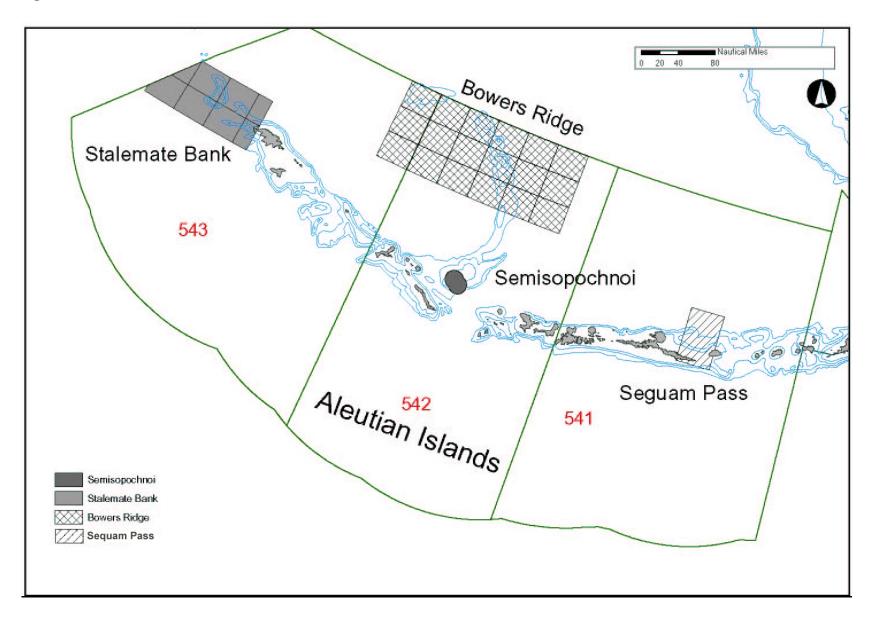
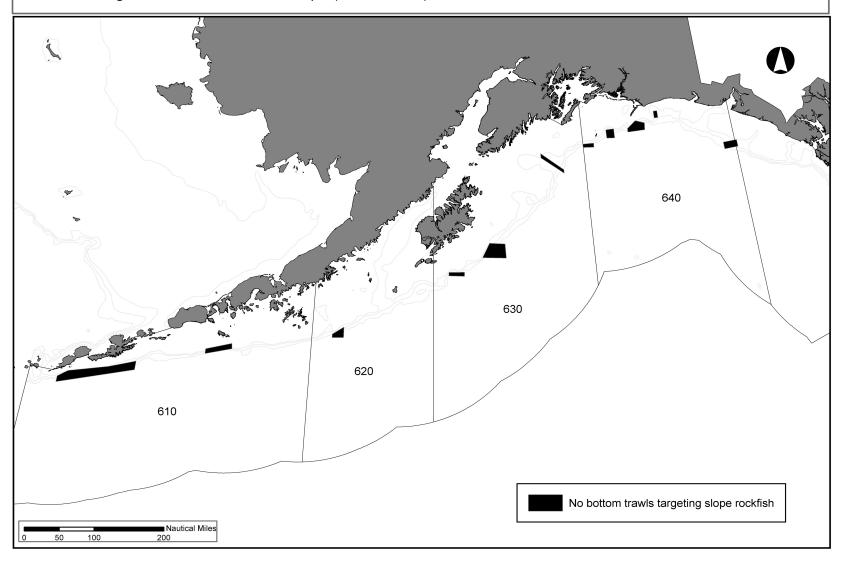


Figure 2-46. Alternative 4: GOA Closure Areas

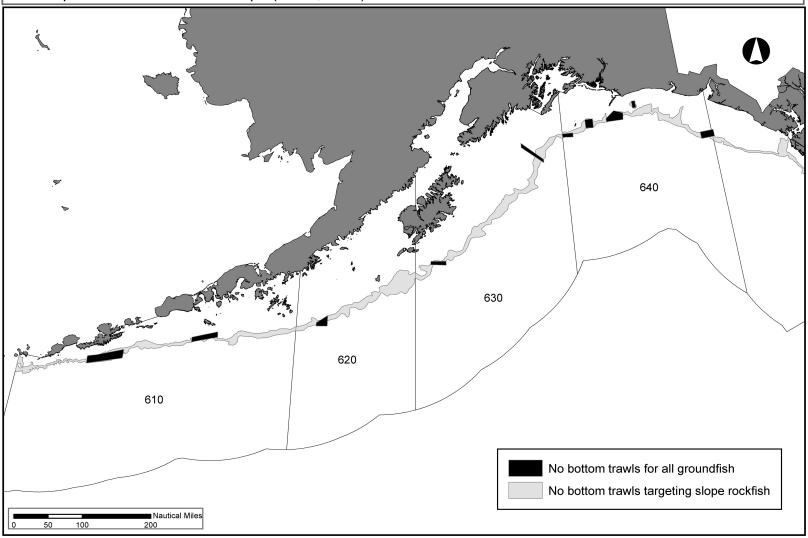
EFH Mitigation Alternative 4 Gulf of Alaska: Prohibit the use of bottom trawl gear targeting GOA slope rockfish within 11 designated sites of the GOA slope (200-1,000m)



Chapter 2 Draft EFH EIS – January 2004

Figure 2-47. Alternatives 5A and 5B: GOA Closure Areas

EFH Mitigation Alternative 5 Gulf of Alaska: Prohibit the use of bottom trawl gear for all groundfish fisheries on 10 designated sites of the GOA slope (200-1,000m). Additionally, prohibit the use of bottom trawls for targeting GOA slope rockfish on the GOA slope (200-1,000m)



Chapter 2 Draft EFH EIS – January 2004

Figure 2-48. Alternative 5A: Aleutian Islands Closure Areas

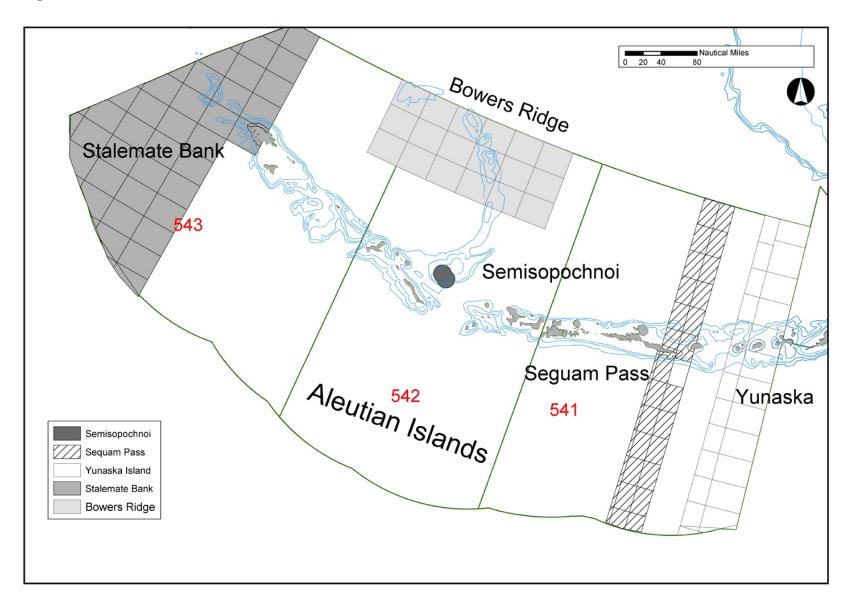
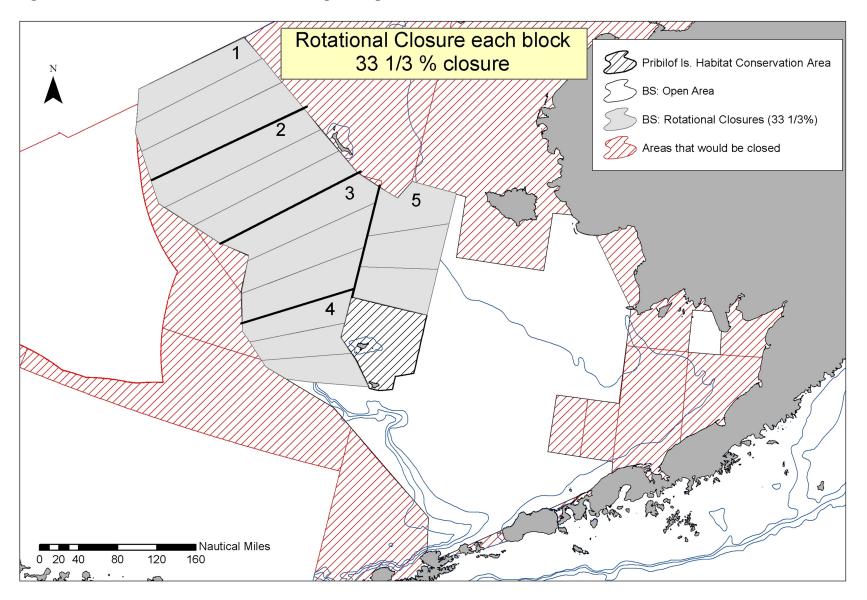


Figure 2-49. Alternatives 5A and 5B: Bering Sea Open/Closed Areas



166°0'0"E 176°0'0"E SP 50°0'0"N 541 // Open Closed (bycatch) Note: All areas not explicitly Open are closed. NOAA Fisheries Nautical Miles 100 176°0'0"E 174°0'0"W

Figure 2-50. Alternative 5B: Aleutian Islands Open/Closed Areas

Figure 2-51. Alternative 6: Closure Areas (Gulf of Alaska)

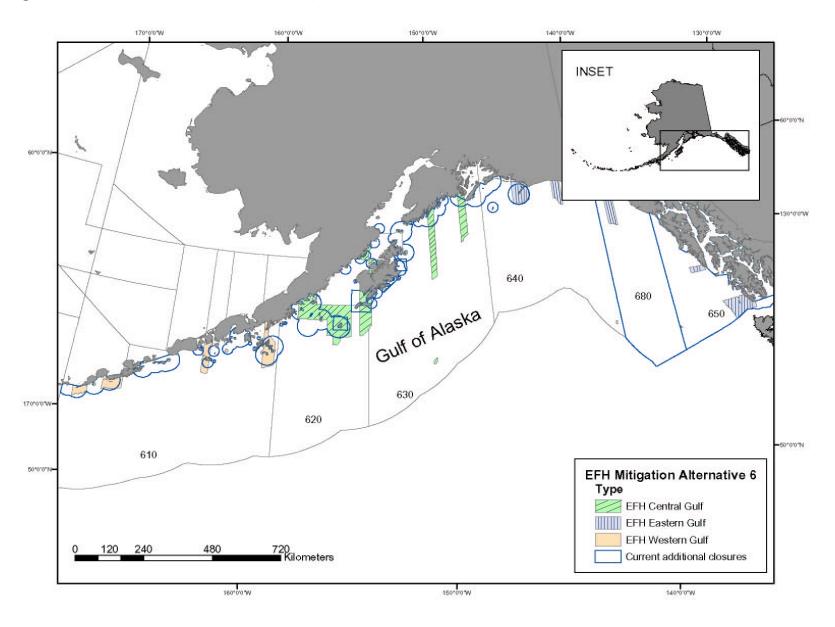


Figure 2-52. Alternative 6: Closure Areas (Aleutian Islands)

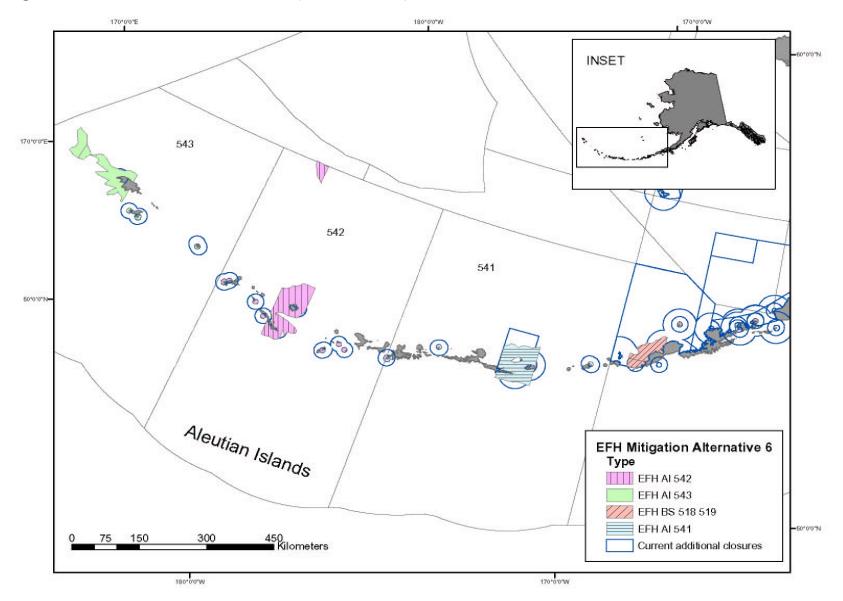
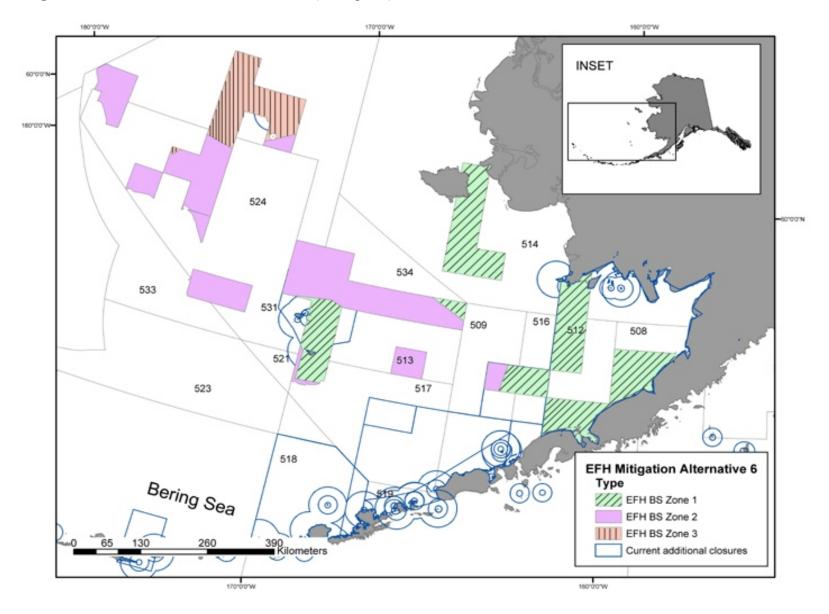
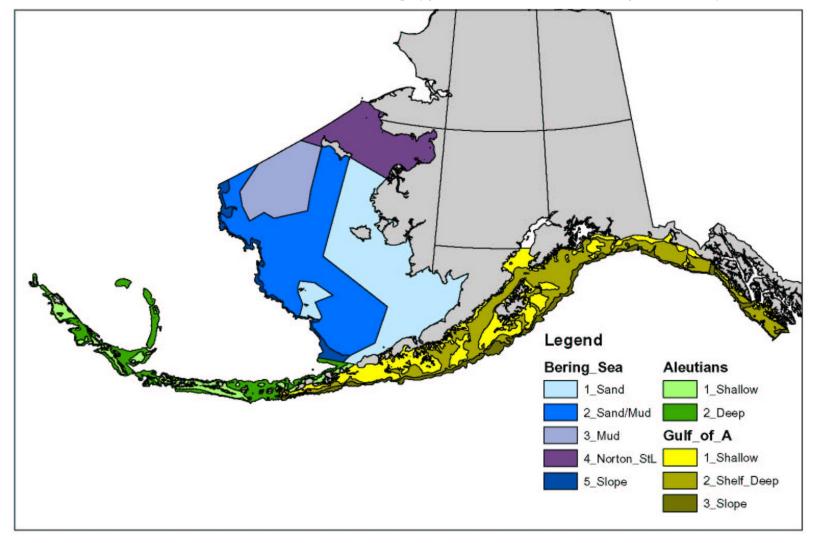


Figure 2-53. Alternative 6: Closure Areas (Bering Sea)

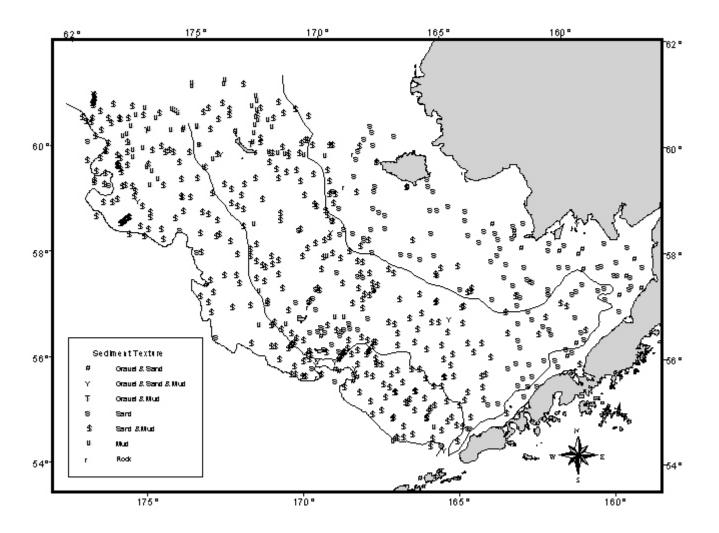


**Figure 3.1-1.** Surficial sediment textural characteristics according to Naidu (1988) for the portion of the continental shelf which is the focus of the EBSSED database. The number-code of each polygon indicates Folk's (1954) sorting level from key.



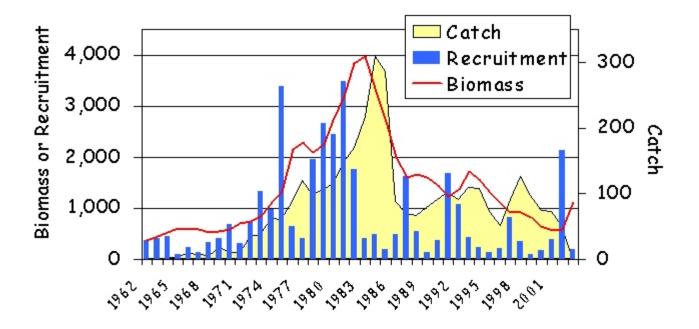
Source: Naidu, 1988

Figure 3.1-2. Distribution of Bering Sea Sediments



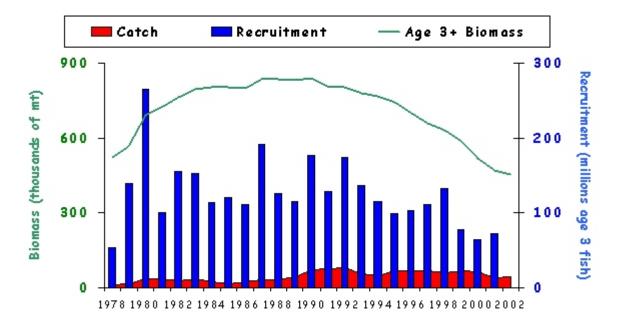
Source: Smith and McConnaughey 1999

Figure 3.2-1. GOA Walleye Pollock - Estimated Biomass (in metric tons)



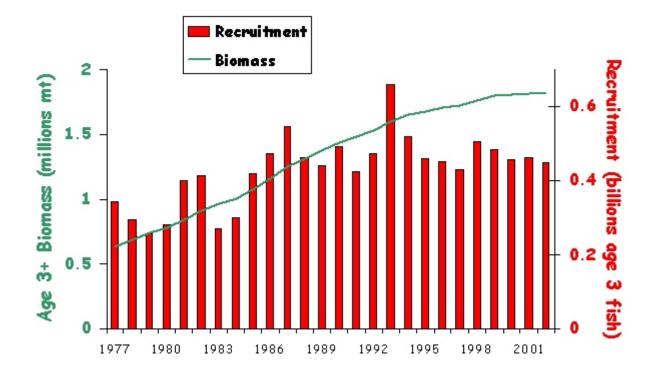
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Figure 3.2-2. GOA Pacific Cod - Estimated Biomass



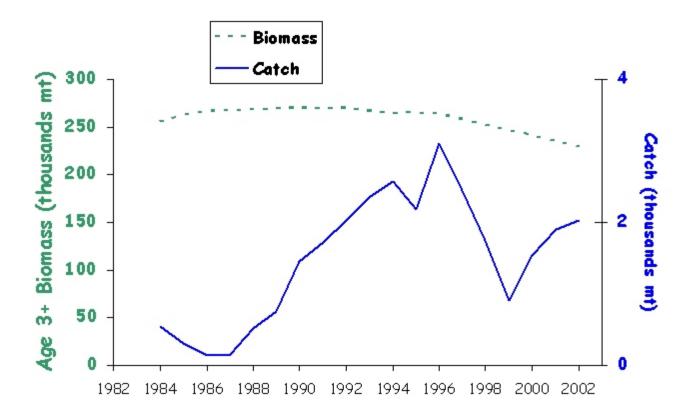
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**Figure 3.2-3.** GOA Arrowtooth Flounder - Estimated Biomass



Source: http://www.afsc.noaa.gov/refm/stocks/Presentations/GOAPlanTeamDec2002.ppt

Figure 3.2-4. GOA Flathead Sole - Estimated Biomass



Source: http://www.afsc.noaa.gov/refm/stocks/Presentations/GOAPlanTeamDec2002.ppt

100,000 90,000 80,000 70,000 60,000 40,000 10,000 10,000 10,000 Catch Year

Figure 3.2-5. GOA Rex Sole - Estimated Biomass

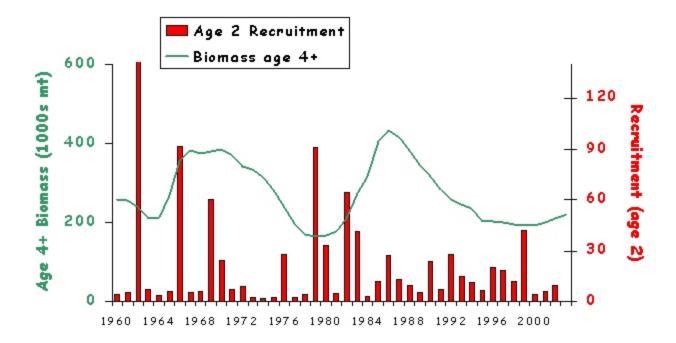
140,000 120,000 100,000 80,000 40,000 20,000 Catch Year

Figure 3.2-6. GOA Deep Water Flatfish - Estimated Biomass

400,000 350,000 250,000 150,000 100,000 50,000 Catch Year

Figure 3.2-7. GOA Shallow Water Flatfish - Estimated Biomass

Figure 3.2-8. GOA Sablefish - Estimated Biomass



Source: http://www.afsc.noaa.gov/refm/stocks/Presentations/GOAPlanTeamDec2002.ppt

Catch
Recruitment
Biomass

120
Recruitment of State of St

Figure 3.2-9. GOA Pacific Ocean Perch - Estimated Biomass (thousands of metric tons)

Source: http://www.afsc.noaa.gov/refm/stocks/Presentations/GOAPlanTeamDec2002.ppt

**Figure 3.2-10.** GOA Shortraker/Rougheye Rockfish - Estimated Biomass

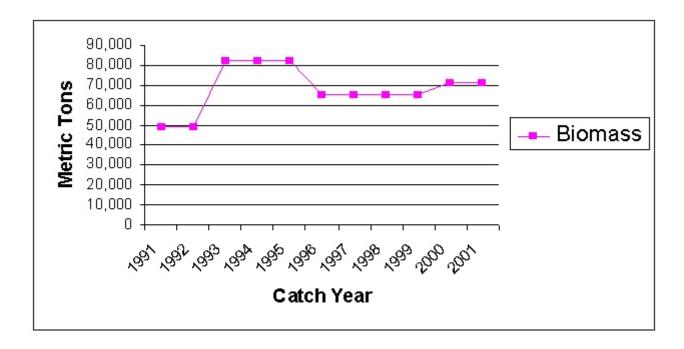
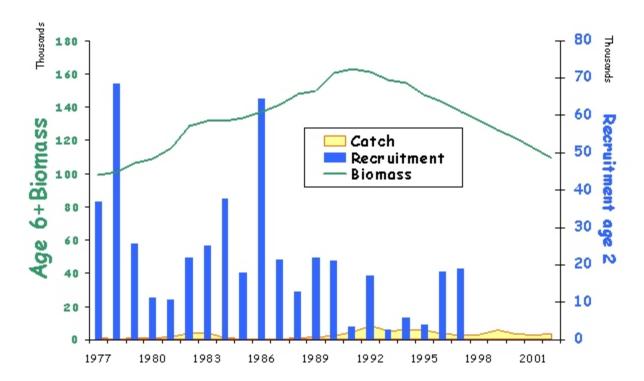
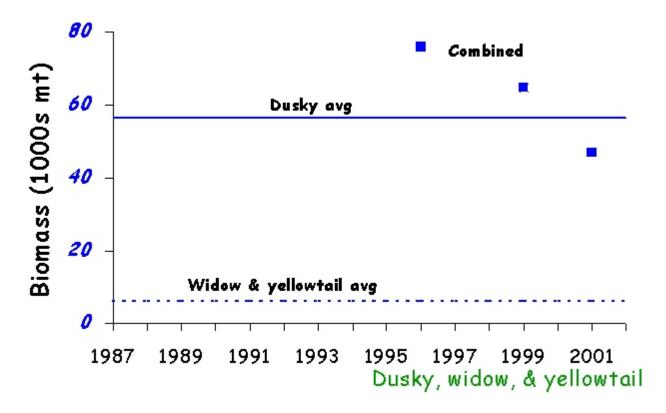


Figure 3.2-11. GOA Northern Rockfish - Estimated Biomass



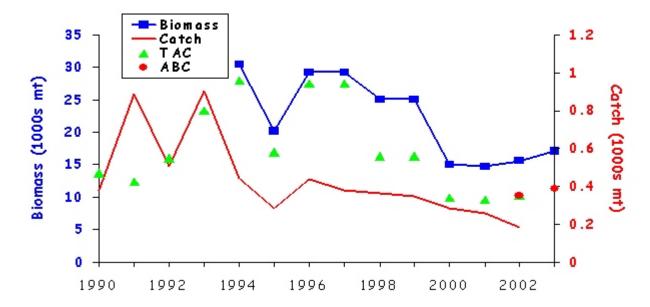
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Figure 3.2-12. GOA Pelagic Shelf Rockfish - Estimated Biomass



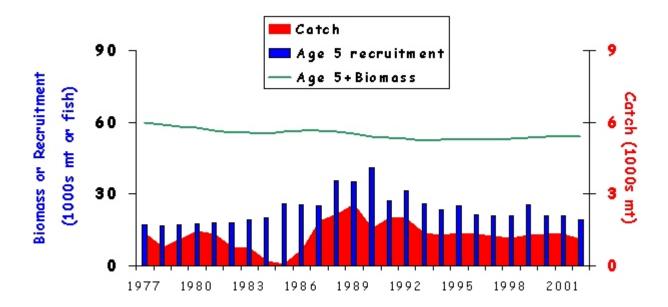
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Figure 3.2-13. GOA Demersal Shelf Rockfish - Estimated Biomass



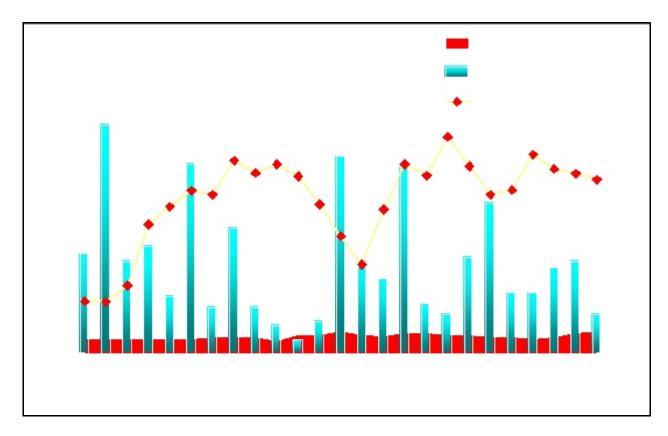
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Figure 3.2-14. GOA Thornyhead Rockfish - Estimated Biomass



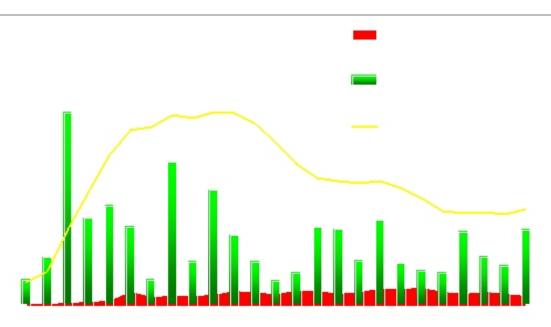
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**Figure 3.2-15.** BSAI Walleye Pollock - Estimated Biomass



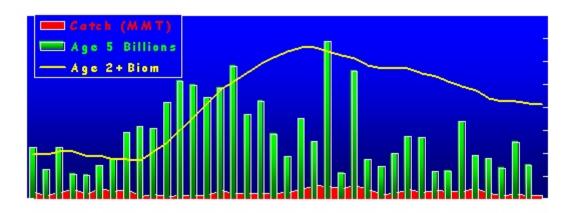
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Figure 3.2-16. BSAI Pacific Cod - Estimated Biomass



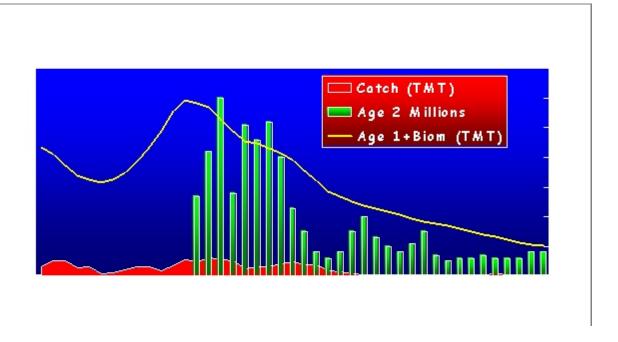
 $Source: \ http://www.afsc.noaa.gov/refm/stocks/Presentations/BSAIPlanTeamDec2002.ppt$ 

Figure 3.2-17. BSAI Yellowfin Sole - Estimated Biomass



 $Source: \ http://www.afsc.noaa.gov/refm/stocks/Presentations/BSAIPlanTeamDec2002.ppt$ 

**Figure 3.2-18.** BSAI Greenland Turbot - Estimated Biomass



**Figure 3.2-19.** BSAI Arrowtooth Flounder

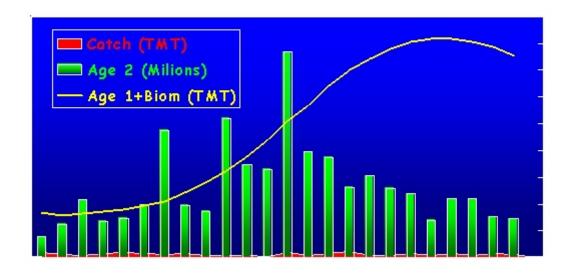
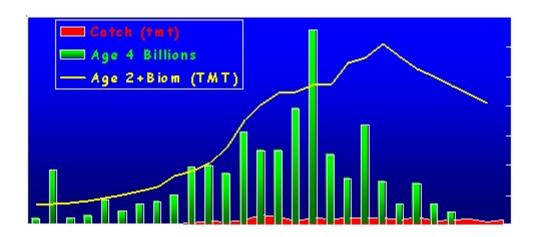


Figure 3.2-20. BSAI Rock Sole - Estimated Biomass



**Figure 3.2-21.** BSAI Flathead Sole - Estimated Biomass



Figure 3.2-22. BSAI Sablefish - Estimated Biomass

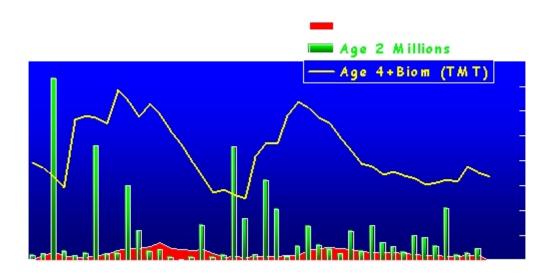


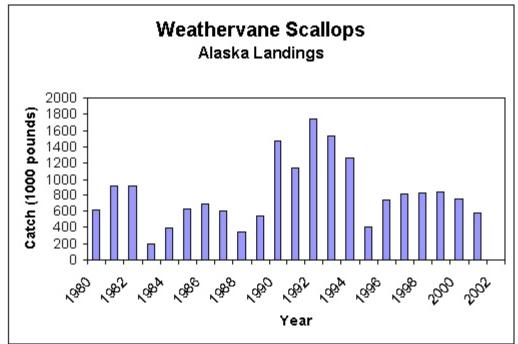
Figure 3.2-23. BSAI Pacific Ocean Perch - Estimated Biomass



**Figure 3.2-24.** BSAI Atka Mackerel - Estimated Biomass

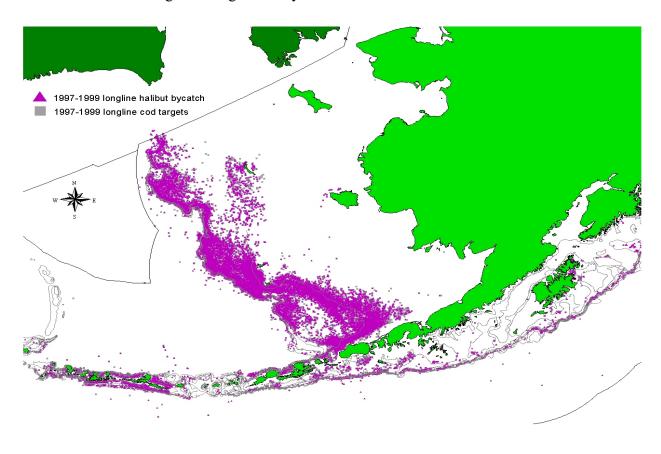


Figure 3.2-25. Weathervane Scallops Alaska Landings



Source: D. Witherell, NPFMC Staff, Anchorage, Alaska

**Figure 3.2-26.** Observed Locations of Recent Halibut Bycatch on Longlines, with Cod Longliner Target Fishery



**Figure 3.2-27.** Observed Locations of Recent Halibut Bycatch in Bottom Trawls, with Target Fishery Distributions

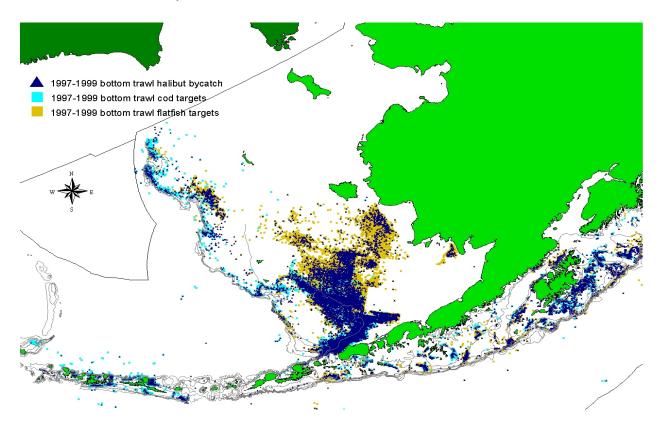
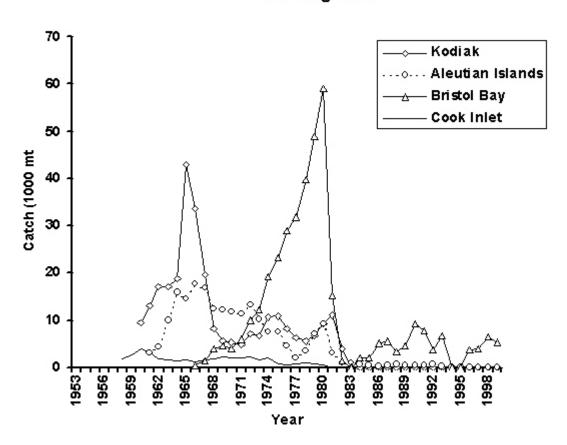


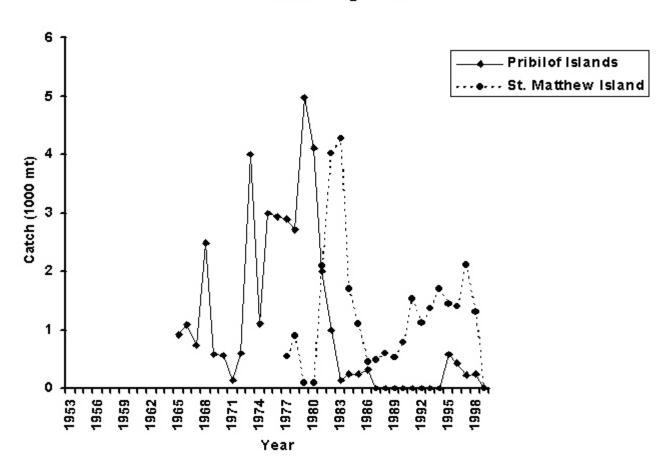
Figure 3.2-28. Historical Red King Crab Catch (in 1,000 mt) in Cook Inlet, Kodiak, Aleutian Islands, and Bristol Bay. Cook Inlet, Kodiak, and Aleutian Islands catches are given per season (for example, 1960 refers to the 1960/61 season).

## Red King Crab



**Figure 3.2-29.** Historical Blue King Crab Catch (in 1,000 mt) in the Pribilof Islands and St. Matthew Island. The Pribilof Islands catches are given per season (for example, 1972 refers to the 1972/73 season).

# Blue King Crab



**Figure 3.2-30.** Historical Seasonal Golden King Crab Catch (in 1,000 mt) in PWS and the Aleutian Islands. Catches are given per season (for example, 1981 refers to the 1981/82 season).

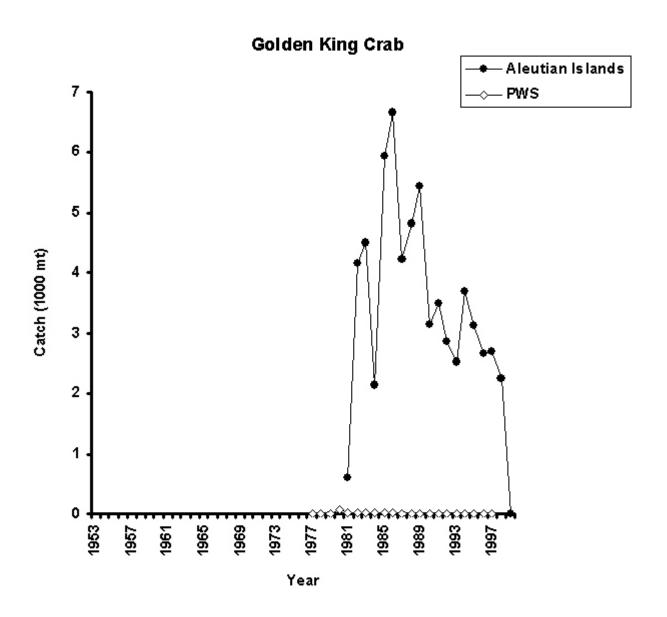
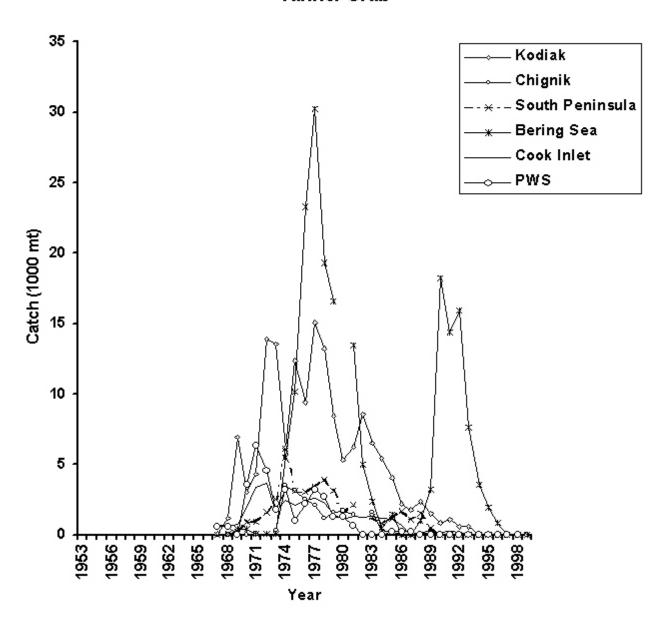


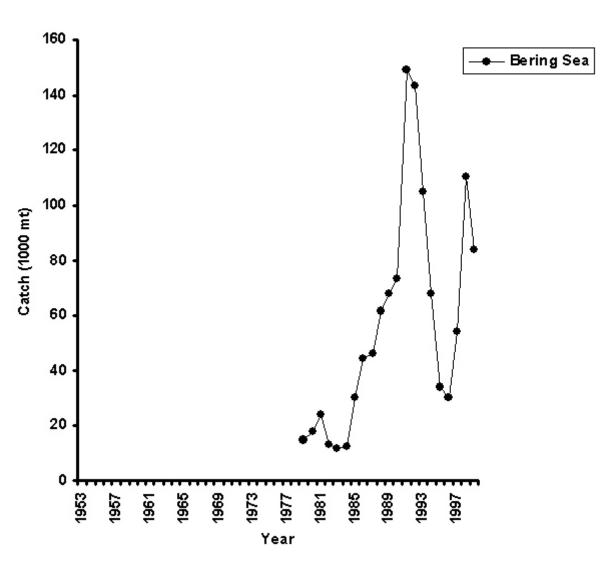
Figure 3.2-31. Historical Tanner Crab Catch (in 1,000 mt) in the PWS, Cook Inlet, Kodiak, Chignik, Southern Peninsula, and Bering Sea Areas. Some catches are given per season (spanning two calendar years), whereas others are per calendar year.





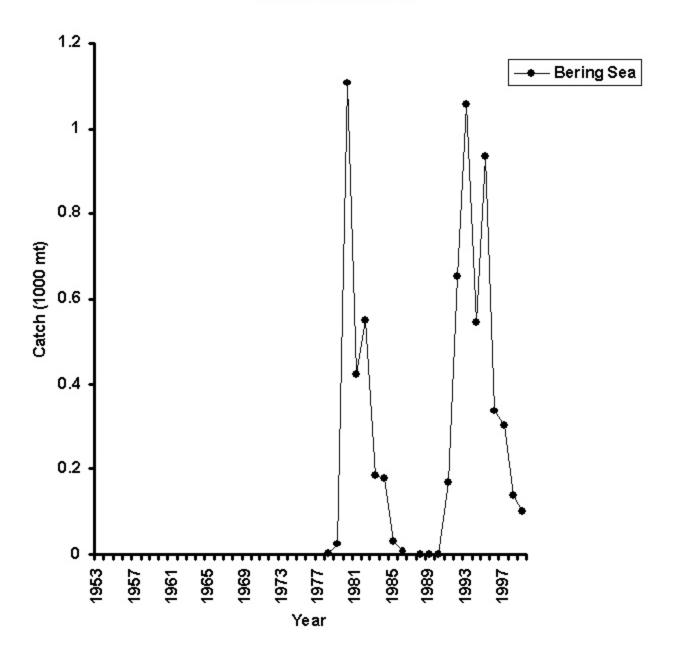
**Figure 3.2-32.** Historical Snow Crab Catch (in 1,000 mt) in the Bering Sea. Some catches are given per season (spanning two calendar years), whereas others are per calendar year.





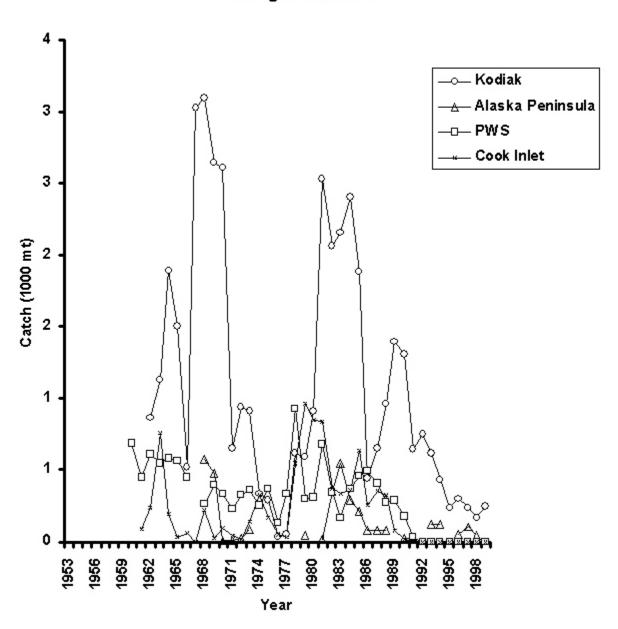
**Figure 3.2-33.** Historical Korean Hair Crab Catch (in 1,000 mt) in the Bering Sea. Some catches are given per season (spanning two calendar years), whereas others are per calendar year.

## Korean Hair Crab

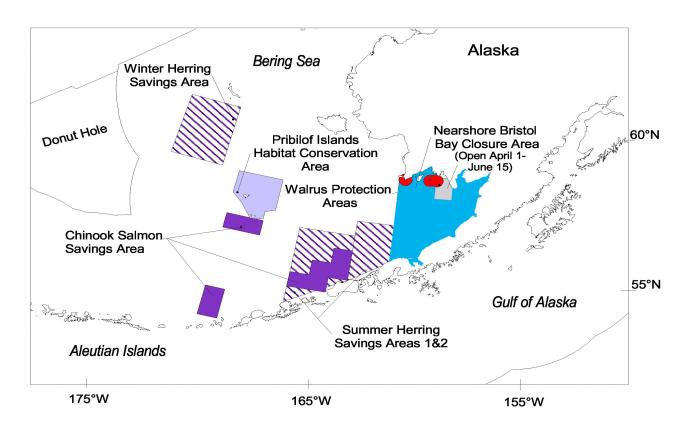


**Figure 3.2-34.** Historical Annual Dungeness Crab Catch (in 1,000 mt) in the PWS, Cook Inlet, Kodiak, and Alaska Peninsula Districts.

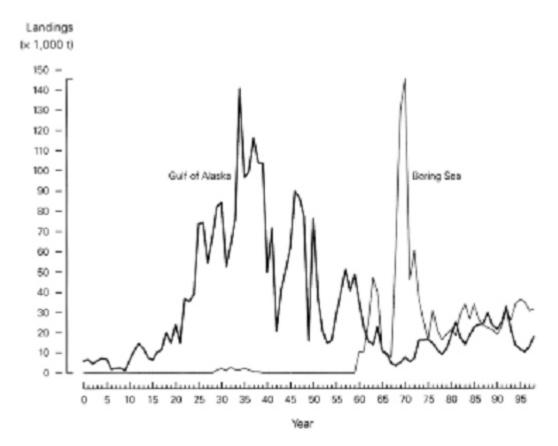
## **Dungeness Crab**



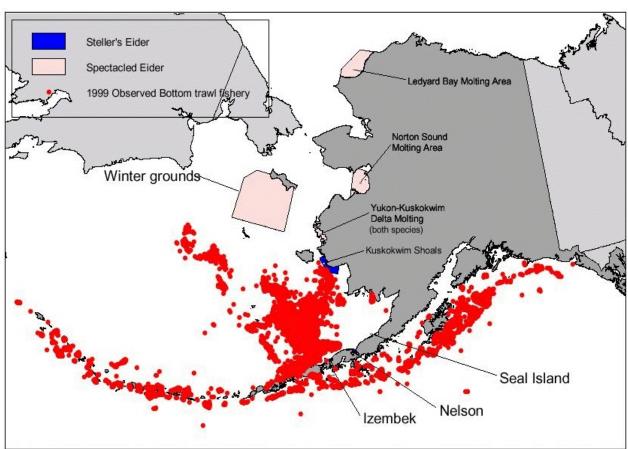
**Figure 3.2-35.** Management Areas Involving Prohibited Species and Walrus in the Bering Sea



**Figure 3.2-36.** Historical Trend of Pacific Herring Catch in the Bering Sea and the Gulf of Alaska, 1990-1998.

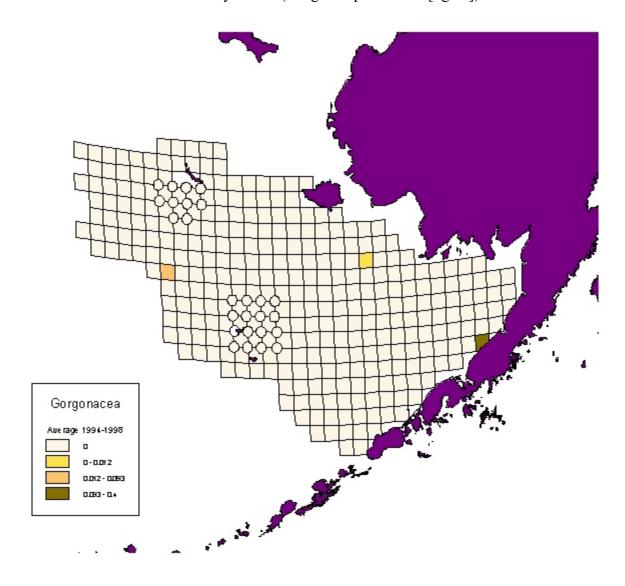


Source: ADF&G Fish Ticket Landing Receipt Database, 1999

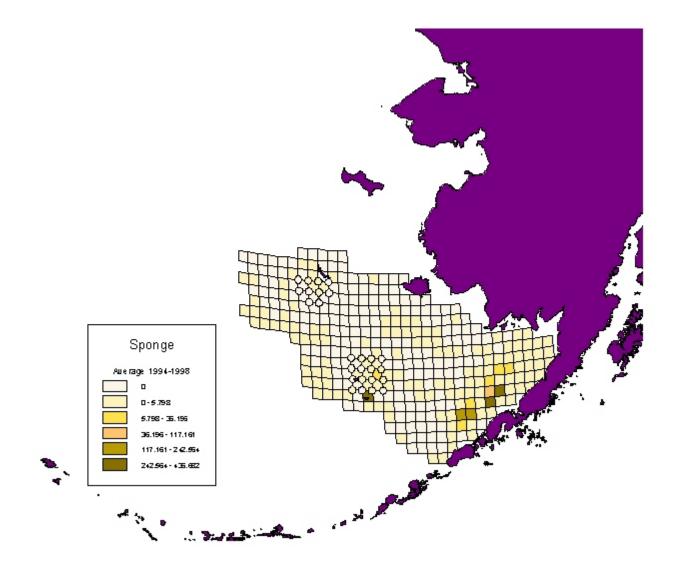


**Figure 3.2-37.** Final Critical Habitat for Spectacled and Steller's Eider

**Figure 3.2-38.** Distribution of Horny Corals (kilograms per hectare [kg/ha])

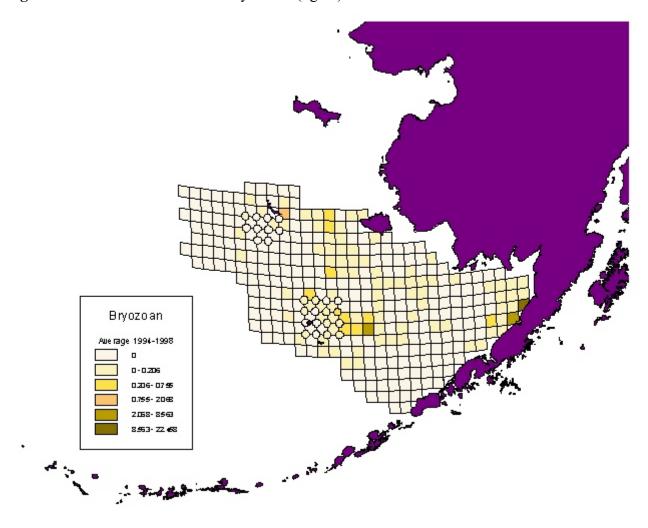


**Figure 3.2-39.** Distribution of Sponges (kg/ha)



 $\textbf{Source:} \verb|http://www.afsc.noaa.gov/groundfish/HAPC/EBScontents.htm| \\$ 

**Figure 3.2-40.** Distribution of Bryozoans (kg/ha)



**Figure 3.2-41.** Distribution of Hydroids (kg/ha)

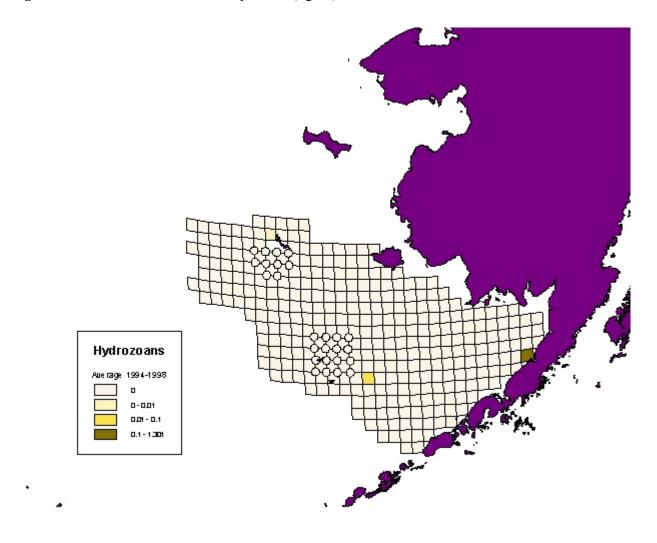


Figure 3.2-42. Distribution of Sea Raspberries (kg/ha)

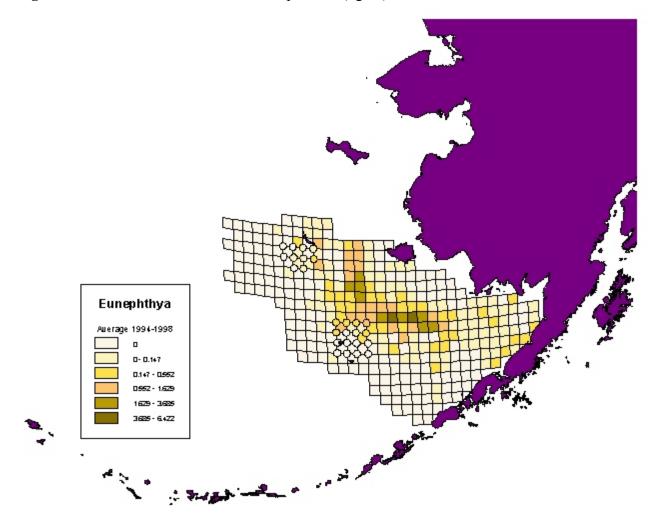
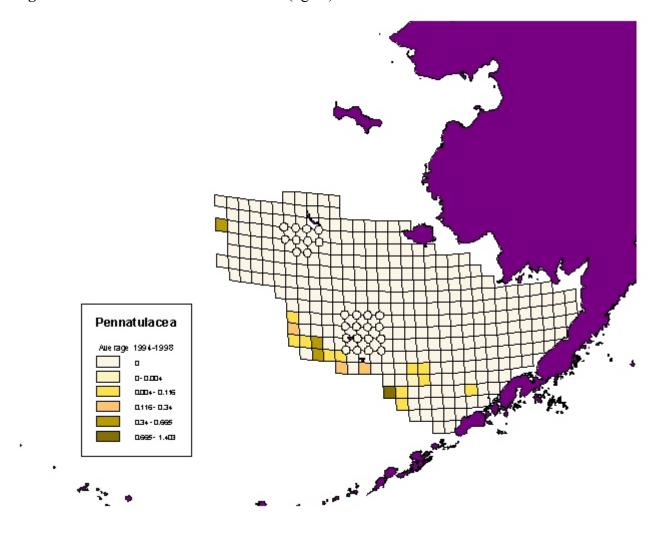


Figure 3.2-43. Distribution of Sea Pen (kg/ha)



**Figure 3.2-44.** Distribution of Anemones (kg/ha)

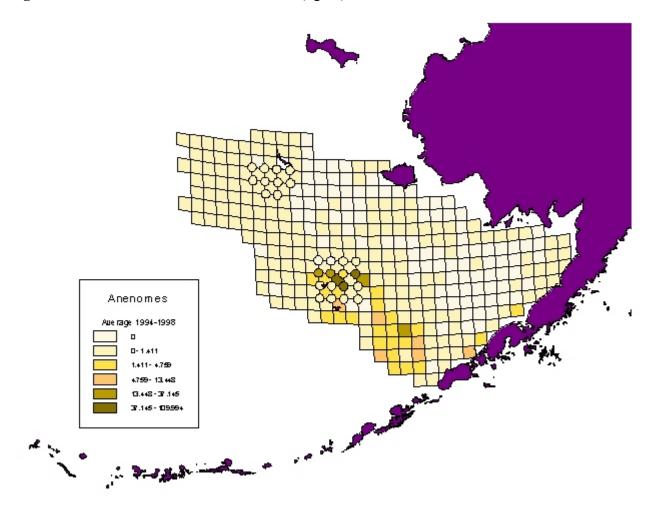
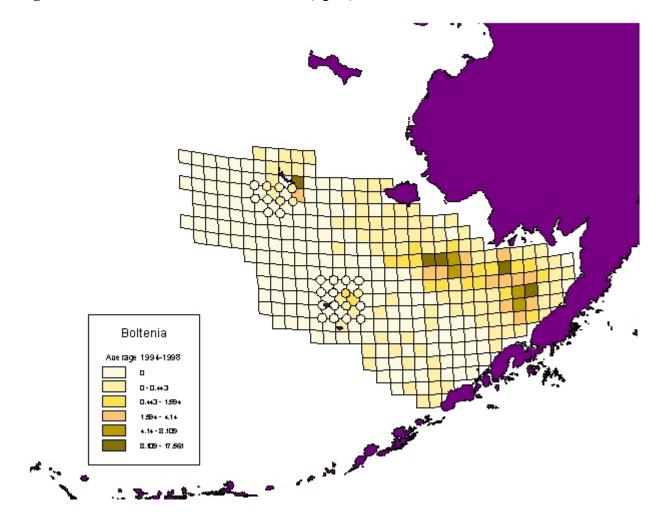


Figure 3.2-45. Distribution of Sea Onion (kg/ha)



**Figure 3.2-46.** Distribution of Sea Peach (kg/ha)

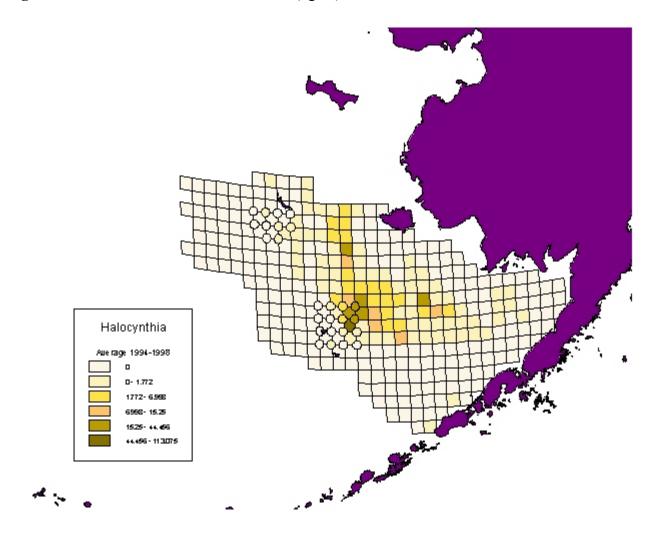
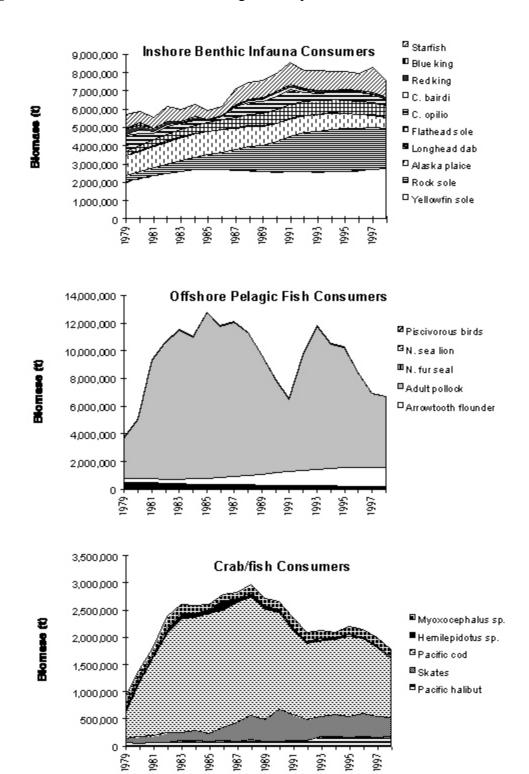


Figure 3.3-1. Biomass Trends in Bering Sea Trophic Guilds, 1979 to 1998



Year

Figure 3.3-2. Trophic Interactions of Key Eastern Bering Sea Groundfish

#### **EASTERN BERING SEA**

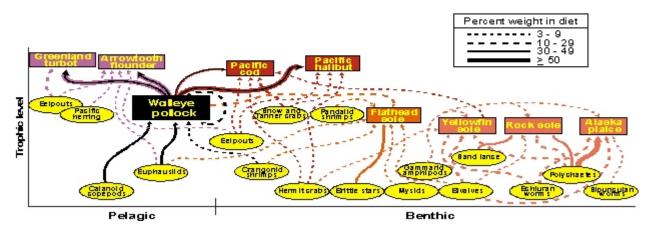


Figure 3.3-3. Trophic Relationships of the Groundfishes in the Aleutian Islands

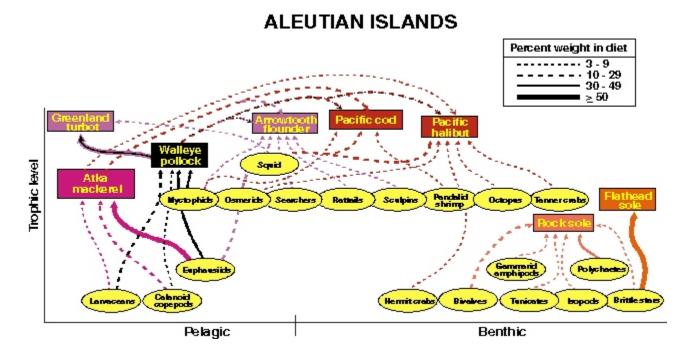
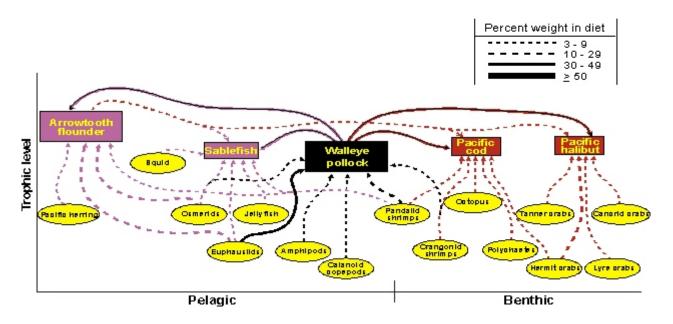


Figure 3.3-4. Trophic Relationships of the Groundfishes in the Gulf of Alaska

## **GULF OF ALASKA**



**Figure 3.3-5.** Trend in Index of Species Composition Based on Ordination of Species Abundance Data from Five Triennial Surveys on Gulf of Alaska Shelf and Slope with Approximate 95 Percent Confidence Interval

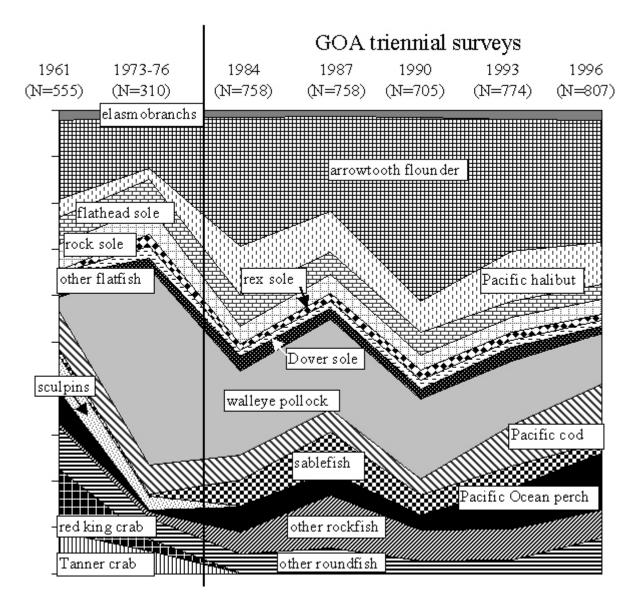
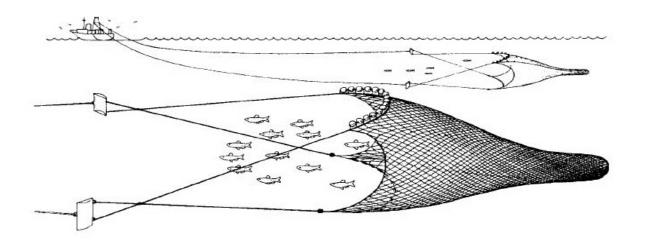
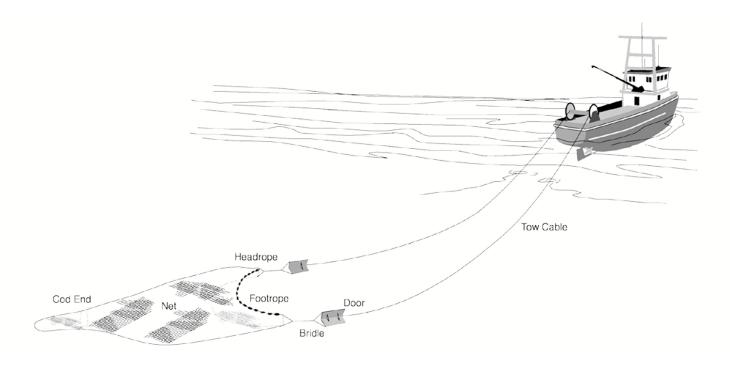


Figure 3.4-1. Pelagic Trawl



Source: Jennings et al. 2001 Permission to use figure requested by Craig Rose (pending)

Figure 3.4-2. Bottom Trawl



Source: K. Richards, Tetra Tech FW, Bothell, WA

Figure 3.4-3. Set Longline Gear

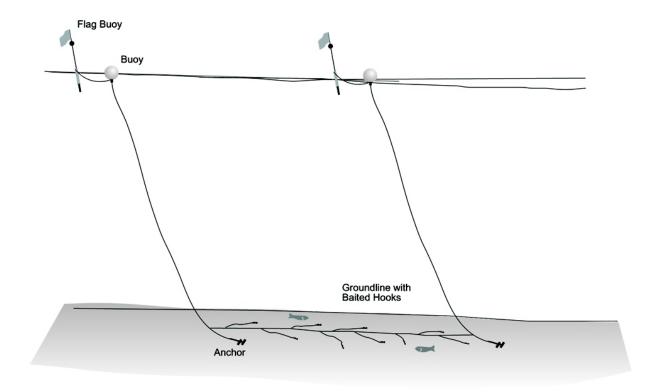


Figure 3.4-4. Vertical Longline

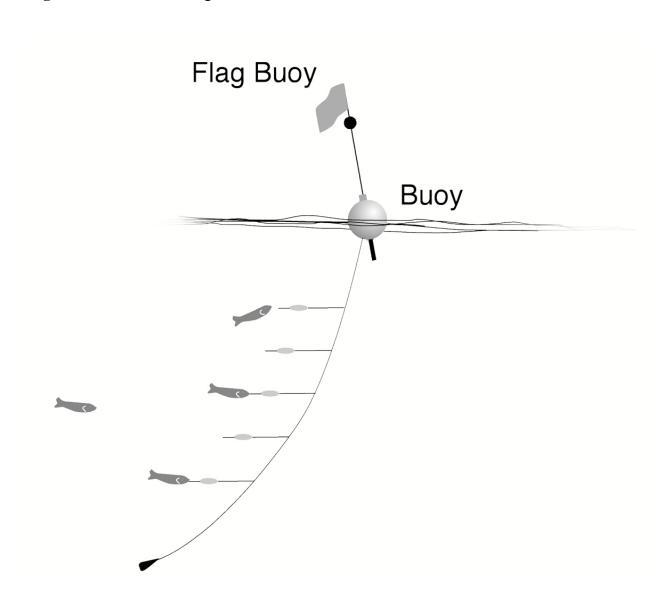


Figure 3.4-5. Jig Machine

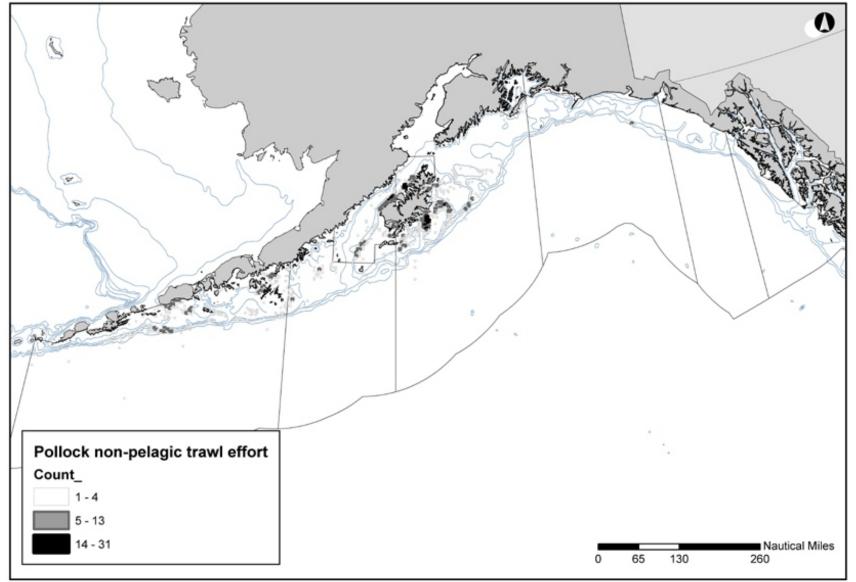


Pollock pelagic trawl effort Count\_ 1 - 20 21 - 86 Nautical Miles 65 130 260

Figure 3.4-6. Gulf of Alaska: 1990-2002 Observed Pollock Pelagic Trawl Effort (Sets/25 km²)

Note:  $(\text{Sets/25 km}^2)$  = Summed for 1990 to 2002

**Figure 3.4-7.** Gulf of Alaska: 1990-2002 Observed Pollock Non-Pelagic (Bottom) Trawl Effort (Sets/25 km<sup>2</sup>)



Source: Cathy Coon, NPFMC Staff, North Pacific Observer Program Data

Chapter 3 Draft EFH EIS – January 2004

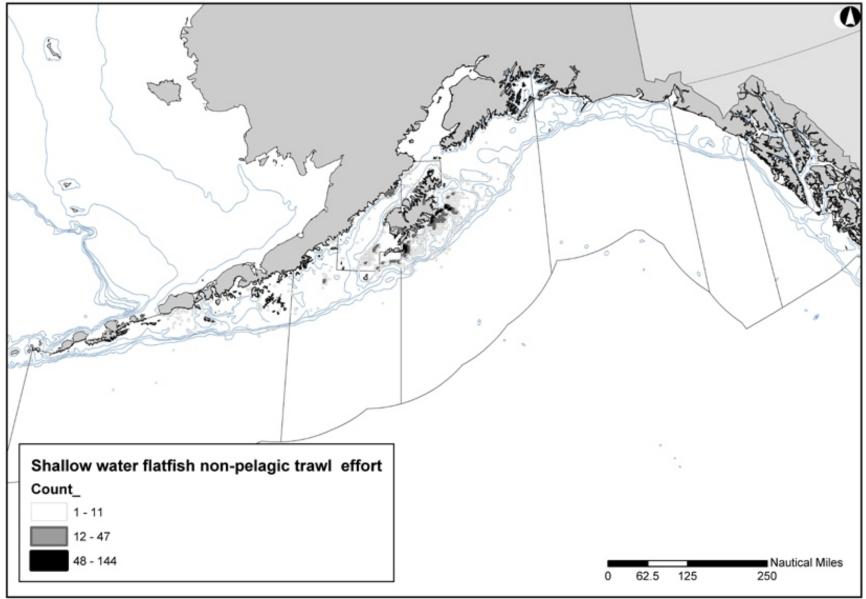
P cod non-pelagic trawl effort Count\_ 1 - 25 26 - 104 105 - 286 Nautical Miles 130 260

Figure 3.4-8. Gulf of Alaska: 1990-2002 Observed Pacific Cod Non-Pelagic (Bottom) Trawl Effort (Sets/25 km²)

Deepwater flatfish non-pelagic trawl effort Count\_ 1 - 26 27 - 167 Nautical Miles 62.5 125 250

Figure 3.4-9. Gulf of Alaska: 1990-2002 Observed Deepwater Flatfish Non-Pelagic Trawl Effort (Sets/25 km²)

Figure 3.4-10. Gulf of Alaska: 1990-2002 Observed Shallow Water Flatfish Non-Pelagic Trawl Effort (Sets/25 km²)



Rockfish pelagic trawl effort Count\_ Nautical Miles 130 260

**Figure 3.4-11.** Gulf of Alaska: 1990-2002 Observed Slope Rockfish Pelagic Trawl Effort (Sets/25 km²)

Note:  $(Sets/25 \text{ km}^2) = Summed \text{ for } 1990 \text{ to } 2002$ 

Rockfish non-pelagic trawl effort Count\_ 1 - 17 71 - 311 Nautical Miles 62.5 125 250

Figure 3.4-12. Gulf of Alaska: 1990-2002 Observed Rockfish Non-Pelagic (Bottom) Trawl Effort (Sets/25 km²)

Sablefish & Turbot hook & line effort Count\_ 1 - 12 13 - 37 38 - 112 ■ Nautical Miles 62.5 125 250

**Figure 3.4-13.** Gulf of Alaska: 1990-2002 Observed Sablefish and Turbot Hook and Line Effort (Sets/25 km<sup>2</sup>)

**Figure 3.4-14.** Gulf of Alaska: 1990-2002 Observed Pacific Cod Hook and Line Effort (Sets/25 km²)

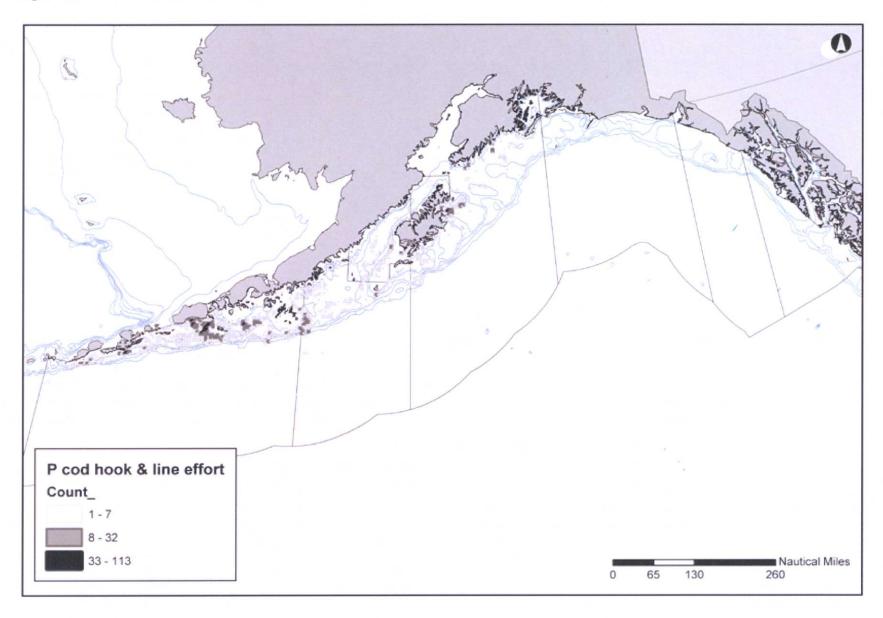
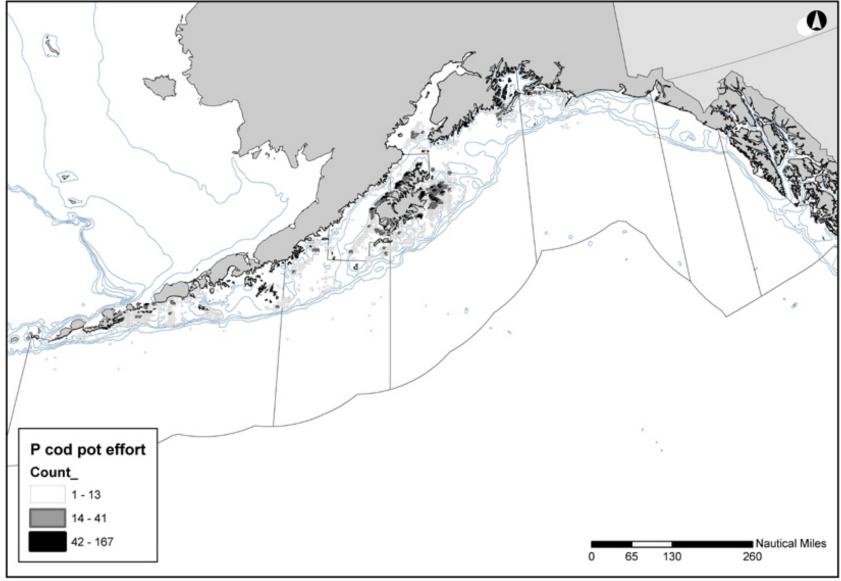
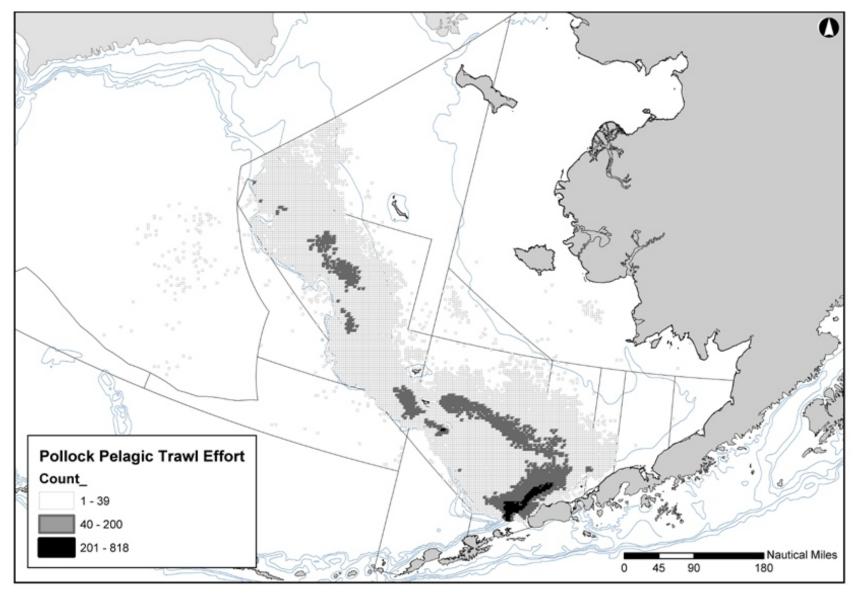


Figure 3.4-15. Gulf of Alaska: 1990-2002 Observed Pacific Cod Pot Effort (Sets/25 km²)





**Figure 3.4-16.** Bering Sea: 1990-2002 Observed Pollock Pelagic Trawl Effort (Sets/25 km<sup>2</sup>)

Note:  $(\text{Sets/25 km}^2)$  = Summed for 1990 to 2002

0 Pollock Non-Pelagic Trawl Effort Count\_ 1 - 13 14 - 48 49 - 137 ■ Nautical Miles 45 90 180 0

Figure 3.4-17. Bering Sea: 1990-2002 Observed Pollock Non-Pelagic (Bottom) Trawl Effort (Sets/25 km<sup>2</sup>)

Pollock Pelagic Trawl Effort Count\_ 1 - 42 43 - 274 275 - 671 Nautical Miles 80 160

**Figure 3.4-18.** Aleutian Islands: 1990-2002 Observed Pollock Pelagic Trawl Effort (Sets/25 km²)

Pollock Non-Pelagic Trawl Effort Count\_ 1-6 ■ Nautical Miles 80 160

**Figure 3.4-19.** Aleutian Islands: 1990-2002 Observed Pollock Non-Pelagic (Bottom) Trawl Effort (Sets/25 km²)

0 P Cod Non-Pelagic Trawl Effort Count\_ 1 - 101 102 - 476 477 - 1045 Nautical Miles 90 180 45

Figure 3.4-20. Bering Sea: 1990-2002 Observed Pacific Cod Non-Pelagic (Bottom) Trawl Effort (Sets/25 km²)

P. Cod Non-Pelagic Trawl Effort Count\_ 1 - 20 21 - 76 77 - 239 Nautical Miles 80 160

**Figure 3.4-21.** Aleutian Islands: 1990-2002 Observed Pacific Cod Non-Pelagic (Bottom) Trawl Effort (Sets/25 km²)

Rock Sole Non-Pelagic Trawl Effort Count\_ 1 - 27 28 - 92 93 - 310 ■ Nautical Miles 90 45 180

**Figure 3.4-22.** Bering Sea: 1990-2002 Observed Rock Sole Non-Pelagic (Bottom) Trawl Effort (Sets/25 km²)

Yellowfin Sole Non-Pelagic Trawl Effort Count\_ 1 - 32 33 - 127 128 - 409 Nautical Miles 45 90 180

**Figure 3.4-23.** Bering Sea: 1990-2002 Observed Yellowfin Sole Non-Pelagic (Bottom) Trawl Effort (Sets/25 km²)

0 Flathead Sole & Other Flatfish Non-Pelagic Trawl Effort Count\_ 1 - 8 Nautical Miles 27 - 86 90 180 45

**Figure 3.4-24.** Bering Sea: 1990-2002 Observed Flathead Sole and Other Flatfish Non-Pelagic (Bottom) Trawl Effort (Sets/25 km<sup>2</sup>)

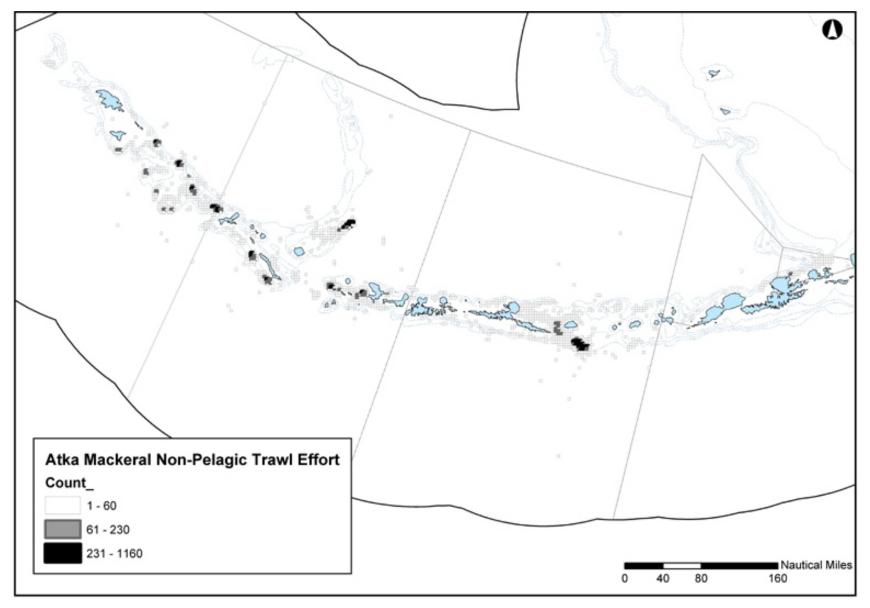
Rockfish Non-Pelagic Trawl Effort Count\_ 1 - 7 8 - 20 21 - 42 Nautical Miles 90 180 45

Figure 3.4-25. Bering Sea: 1990-2002 Observed Rockfish Non-Pelagic (Bottom) Trawl Effort (Sets/25 km²)

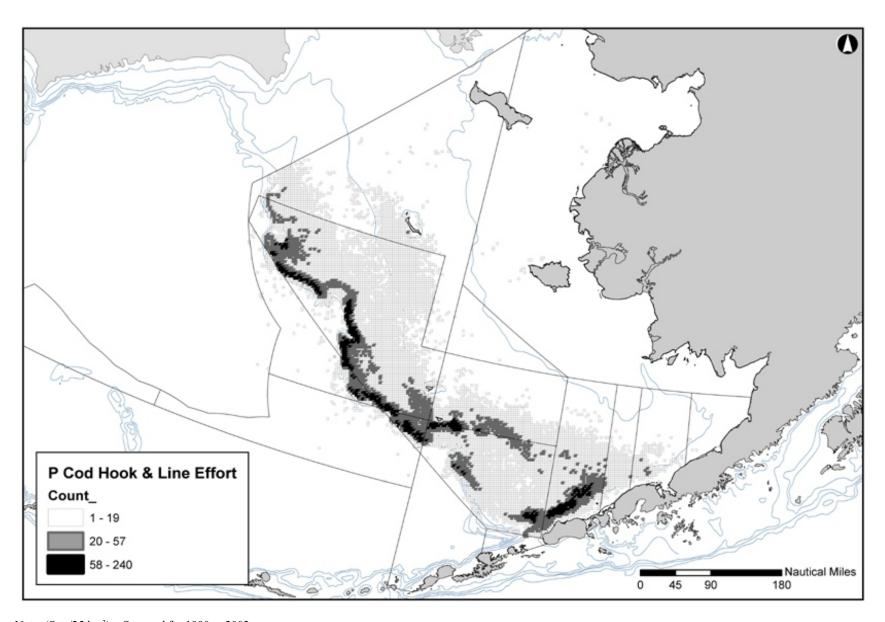
Rockfish Non-Pelagic Trawl Effort Count\_ 1 - 15 16 - 121 122 - 298 80 160

**Figure 3.4-26.** Aleutian Islands: 1990-2002 Observed Rockfish Non-Pelagic (Bottom) Trawl Effort (Sets/25 km²)

Figure 3.4-27. Aleutian Islands: 1990-2002 Observed Atka Mackeral Non-Pelagic (Bottom) Trawl Effort (Sets/25 km²)



**Figure 3.4-28.** Bering Sea: 1990-2002 Observed Pacific Cod Hook and Line Effort (Sets/25 km<sup>2</sup>)



Note:  $(\text{Sets/25 km}^2)$  = Summed for 1990 to 2002

Source: Cathy Coon, NPFMC Staff, North Pacific Observer Program Data

Chapter 3 Draft EFH EIS – January 2004

P Cod Hook & Line Effort Count\_ 1 - 25 26 - 96 97 - 325 Nautical Miles 80 160

**Figure 3.4-29.** Aleutian Islands: 1990-2002 Observed Pacific Cod Hook and Line Effort (Sets/25 km²)

Note:  $(\text{Sets/25 km}^2)$  = Summed for 1990 to 2002

0 Sablefish Turbot Hook & Line Effort Count\_ 1 - 10 11 - 33 34 - 112 Nautical Miles

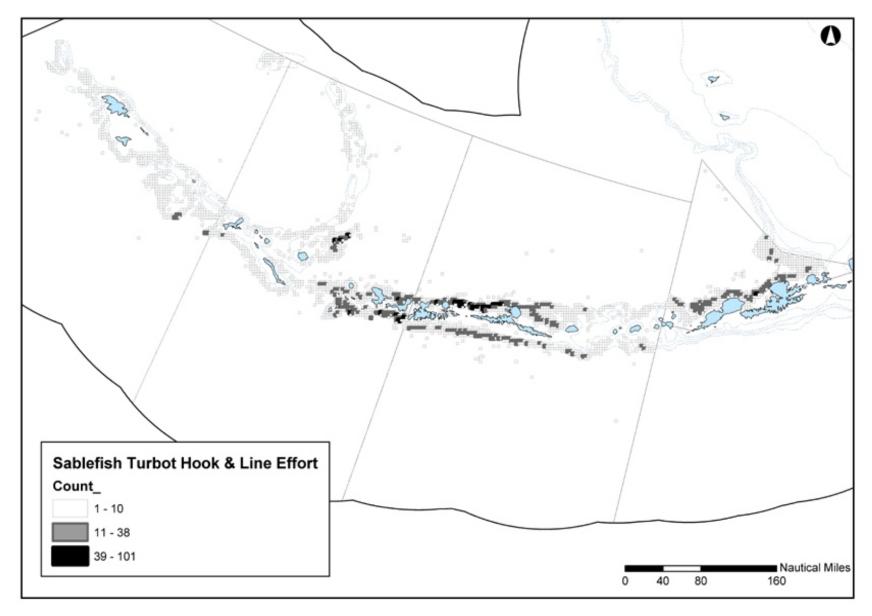
90

180

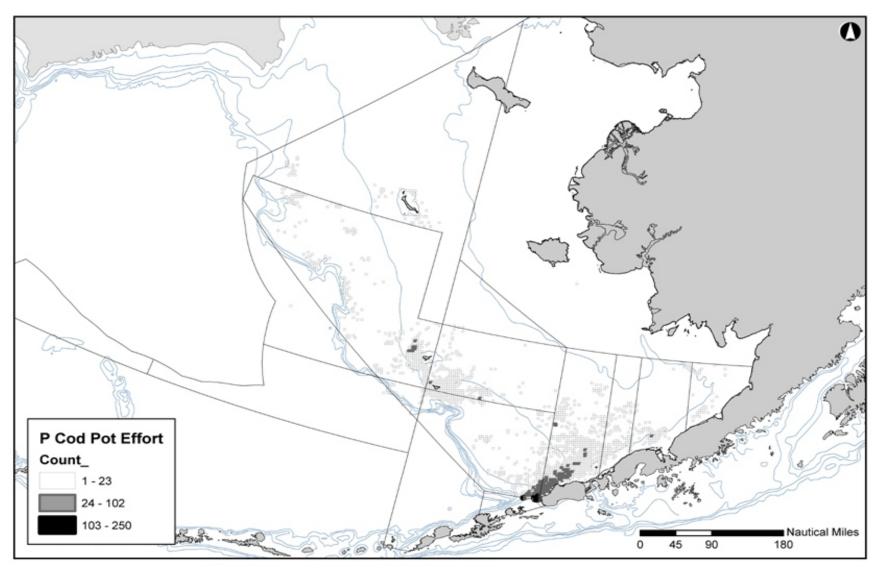
Figure 3.4-30. Bering Sea: 1990-2002 Observed Sablefish and Turbot Hook and Line Trawl Effort (Sets/25 km²)

Note:  $(\text{Sets/25 km}^2) = \text{Summed for } 1990 \text{ to } 2002$ 

Figure 3.4-31. Aleutian Islands: 1990-2002 Observed Sablefish and Turbot Hook and Line Effort (Sets/25 km²)



**Figure 3.4-32.** Bering Sea: 1990-2002 Observed Pacific Cod Pot Effort (Sets/25 km²)



Note:  $(Sets/25 \text{ km}^2) = Summed \text{ for } 1990 \text{ to } 2002$ 

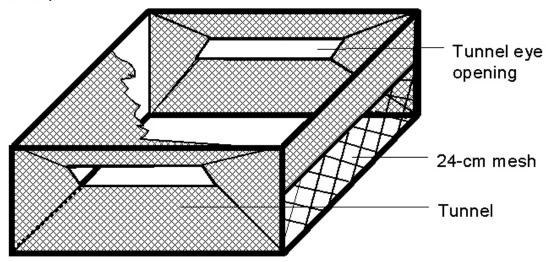
0 P Cod Pot Effort Count\_ 1 - 64 65 - 269 270 - 861 Nautical Miles 80 160

Figure 3.4-33. Aleutian Islands: 1990-2002 Observed Pacific Cod Pot Effort (Sets/25 km<sup>2</sup>)

Note:  $(\text{Sets/25 km}^2)$  = Summed for 1990 to 2002

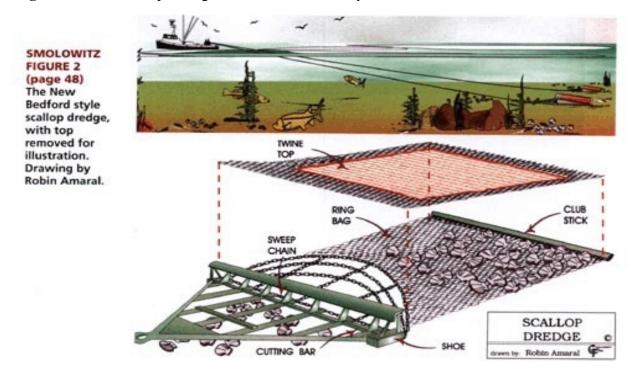
Figure 3.4-34. Crab Pot/Pacific Cod Pot

## Standard pot



Source: Alaska Department of Fish and Game

Figure 3.4-35. Scallop Dredge, The New Bedford Style



Source: Smolowitz.1998

Figure 3.4-36. Salmon Troll

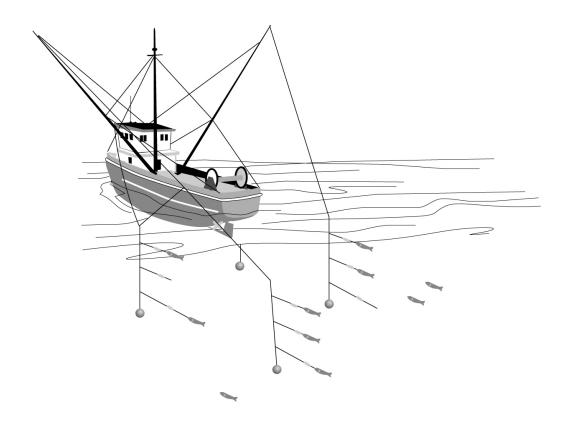
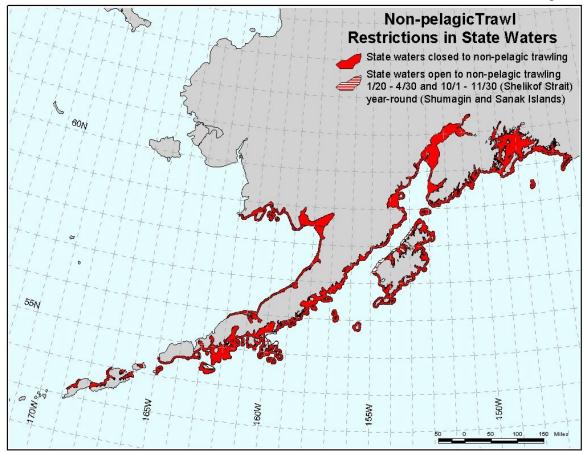


Figure 3.4-37. Year-round Non-pelagic Trawl Closure Areas (shaded areas) in State Waters of the Central and Western Gulf of Alaska and Southeastern Bering Sea



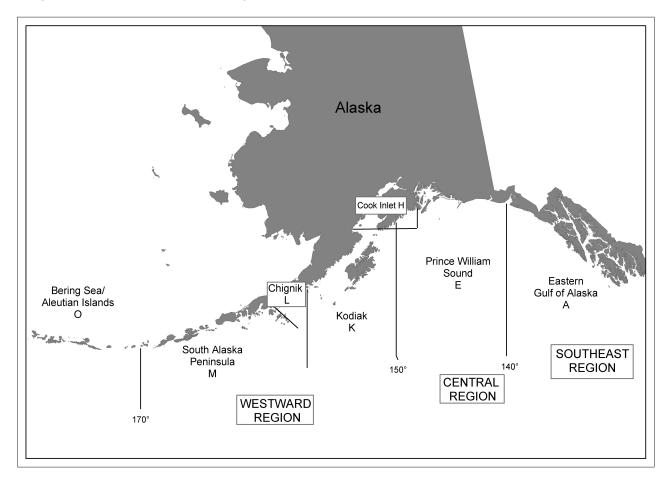
Source: NMFS 2001b

**Trawl Restrictions in Prince William Sound** Steller Sea Lion Haulout or Rookery Year-round No Trawl Gear\*\* 5 AAC 39.165 Rocky Point No Pollock Trawl 6/1 - 11/1 Point Freemantle 5 AAC 28.250 Bligh Island - North Tip Glacier Island Bligh Island - South Tip Porcupine Point Notes:
"Pollock trawl gear is allowed west
of Johnstone Point, Knowles Head,
and Bligh Island and north of Zaikof
Point and Cape Hinchinbrook
(depicted as blue lines on the map)
during the directed pollock fishery.
5 AAC 28.263 (b) Northwestern Shrimp Trawl
Pishing District Perry Island **Knowles Head** Orca Bay Point Eleanor 60 29.96 N 147 00:12 W 60 29.96 N 147 20:12 W Johnstone Point **Point Whitshed** Non-pelagic trawl gear may not be used to fish for groundfish, except's ablefish,inside PWS. 5 AAC 28.230. Point Bentinck Hook Point Zaikof Point Cape Hinchinbrook 60 10.96 N 147 20.12 W · Seal Rocks 60° N The Needle Point Elrington 🌰 Wooded I. (Fish I.) 148° W 20 Miles

Figure 3.4-38. Year-round and Seasonal Trawl Restrictions in Prince William Sound

Source: NMFS 2001b

Figure 3.4-39. State Groundfish Regions



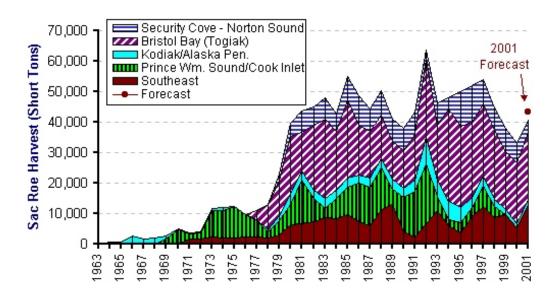
Source: ADF&G 2002c

Figure 3.4-40. Alaskan Herring Fisheries



Source: ADF&G 2002a

Figure 3.4-41. Herring Sac Roe Harvests, 1963-2001



Source: ADF&G 2001

Figure 3.4-42. Drift Gillnet

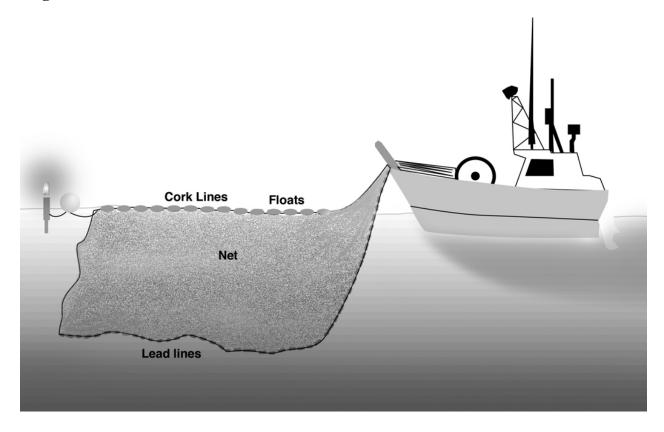
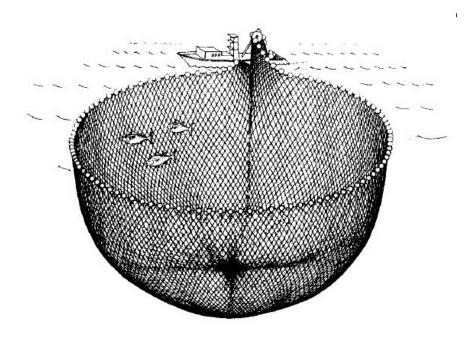
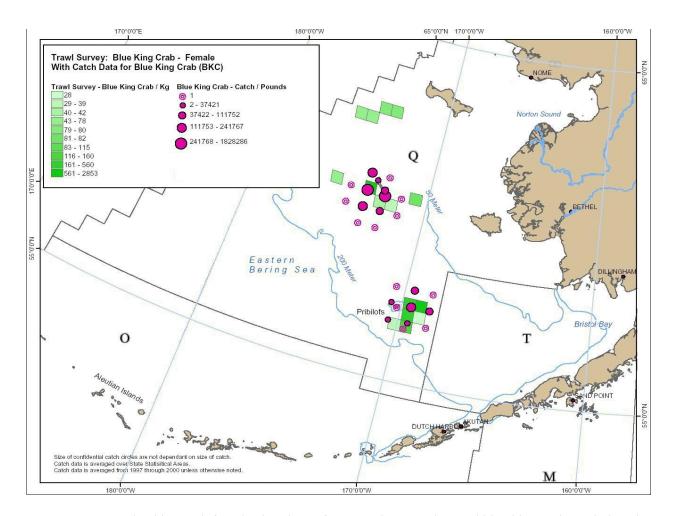


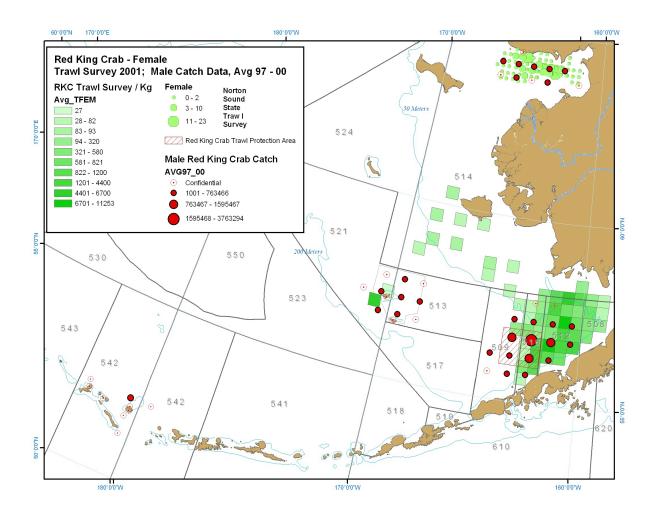
Figure 3.4-43. Purse Seine Gear



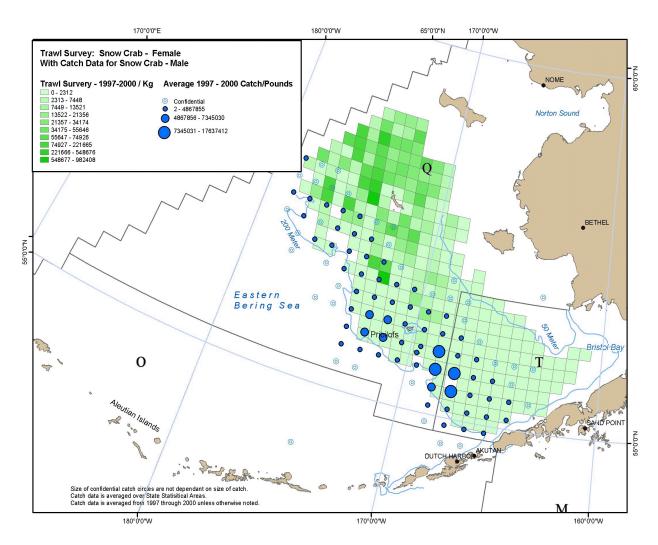
Source: <sup>©</sup>Blackwell Science (Jennings et al. 2001) Permission to use figure requested by Craig Rose (pending)



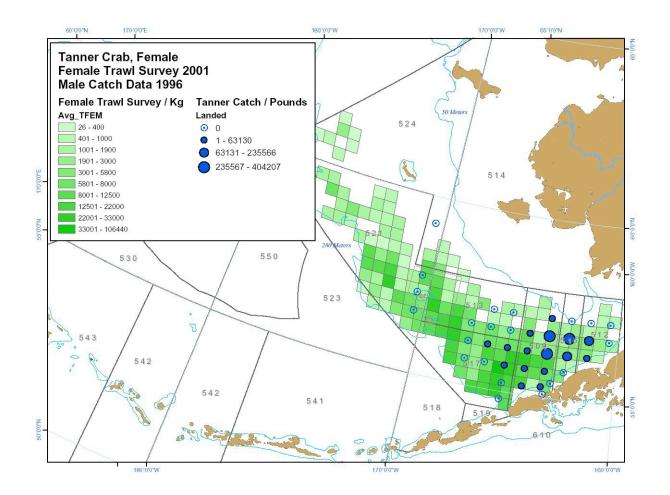
**Figure 4.3-1.** Blue king crab female abundance from trawl survey data and blue king crab catch data, by State of Alaska statistical area.



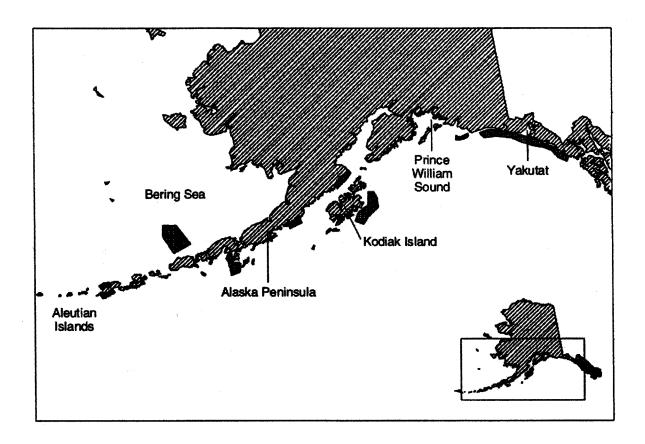
**Figure 4.3-2.** Red king crab female abundance from trawl survey data and red king crab catch data, by State of Alaska statistical area.



**Figure 4.3-3.** Snow crab female abundance from trawl survey data and snow crab catch data, by State of Alaska statistical area.



**Figure 4.3-4.** Tanner crab female abundance from trawl survey data and Tanner crab catch data, by State of Alaska statistical area.



**Figure 4.3-5.** Locations of commercial scallop beds in Alaska.